

=> d his

(FILE 'HOME' ENTERED AT 14:16:45 ON 17 MAY 2011)

L1 FILE 'CAPLUS' ENTERED AT 14:16:57 ON 17 MAY 2011
1 S US20070015746/PN
SELECT RN L1 1-

L2 FILE 'REGISTRY' ENTERED AT 14:17:39 ON 17 MAY 2011
47 S E1-47
L3 10 S L2 AND 5-6-7/SZ
L4 37 S L2 NOT L3
L5 12 S L4 AND 5-7/SZ
L6 25 S L4 NOT L5

L7 FILE 'CAPLUS' ENTERED AT 14:21:12 ON 17 MAY 2011
5 S L5

L8 FILE 'REGISTRY' ENTERED AT 14:23:26 ON 17 MAY 2011
STRUCTURE UPLOADED
L9 50 S L8
L10 3347 S L8 SSS FUL
L11 32 S L10 AND 5-7/SZ
L12 STRUCTURE UPLOADED
L13 2040 S L12 SUB-L10 FUL
L14 1307 S L10 NOT L13

L15 FILE 'CAPLUS' ENTERED AT 14:34:30 ON 17 MAY 2011
62 S L14

L16 FILE 'REGISTRY' ENTERED AT 14:35:09 ON 17 MAY 2011
1 S 35165-04-9/RN
L17 1306 S L14 NOT L16

L18 FILE 'CAPLUS' ENTERED AT 14:35:26 ON 17 MAY 2011
59 S L17

L19 FILE 'REGISTRY' ENTERED AT 14:35:51 ON 17 MAY 2011
1 S 57046-64-7/RN
L20 1305 S L17 NOT L19

L21 FILE 'CAPLUS' ENTERED AT 14:36:09 ON 17 MAY 2011
58 S L20
L22 ANALYZE L21 1- RN HIT : 1266 TERMS

L23 FILE 'REGISTRY' ENTERED AT 14:36:29 ON 17 MAY 2011
1 S 629664-81-9/RN
L24 1182 S 2436.13.8/RID
L25 123 S L20 NOT L24

L26 FILE 'CAPLUS' ENTERED AT 14:37:34 ON 17 MAY 2011
39 S L25

L27 FILE 'REGISTRY' ENTERED AT 14:38:11 ON 17 MAY 2011
107 S L25 AND CAPLUS/LC
L28 16 S L25 NOT L27

10/565,702

=> d 18

L8 HAS NO ANSWERS

L8 STR



G1:C,N

G2:O,S,N

Structure attributes must be viewed using STN Express query preparation.

=> d 112

L12 HAS NO ANSWERS

L12 STR



G1:C,N

G2:O,S,N

Structure attributes must be viewed using STN Express query preparation.

=> d 128 16

10/565,702

L28 ANSWER 16 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 1139-56-6 REGISTRY
ED Entered STN: 16 Nov 1984
CN Furo[2,3-d]pyrrolo[3,2,1-k][1]benzazepine (8CI, 9CI) (CA INDEX NAME)
MF C14 H9 N O
CI RPS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10/565,702

L28 ANSWER 15 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 7486-12-6 REGISTRY
ED Entered STN: 16 Nov 1984
CN Pyrrolo[3',4':3,4]cyclobut[1,2-d]imidazole (8CI, 9CI) (CA INDEX NAME)
MF C7 H3 N3
CI RPS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10/565,702

L28 ANSWER 14 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 80294-50-4 REGISTRY
ED Entered STN: 16 Nov 1984
CN Oxazolo[5,4-d][1,4]thiazino[2,3,4-jk][1]benzazepine (9CI) (CA INDEX NAME)
MF C13 H8 N2 O S
CI RPS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10/565,702

L28 ANSWER 13 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 80294-51-5 REGISTRY
ED Entered STN: 16 Nov 1984
CN [1,4]Thiazino[2,3,4-jk]thiazolo[5,4-d][1]benzazepine (9CI) (CA INDEX
NAME)
MF C13 H8 N2 S2
CI RPS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10/565,702

L28 ANSWER 12 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 87208-25-1 REGISTRY
ED Entered STN: 16 Nov 1984
CN 4,9-Methano-4H-pyrrolo[1,2-a]thieno[3,2-d]azepine (9CI) (CA INDEX NAME)
MF C12 H9 N S
CI RPS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10/565,702

L28 ANSWER 11 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 88084-57-5 REGISTRY
ED Entered STN: 16 Nov 1984
CN Azirino[2,3,1-hi]thiazolo[5,4-e]indole (9CI) (CA INDEX NAME)
MF C9 H4 N2 S
CI RPS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10/565,702

L28 ANSWER 10 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 93261-43-7 REGISTRY
ED Entered STN: 18 Dec 1984
CN 1H-[1]Benzo[thieno[5,6-b]azirine (9CI) (CA INDEX NAME)
MF C8 H5 N S
CI RPS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10/565,702

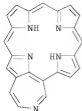
L28 ANSWER 9 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 93261-55-1 REGISTRY
ED Entered STN: 18 Dec 1984
CN 2,6-Methano-1H-[1]benzothieno[5,6-b]azirine (9CI) (CA INDEX NAME)
MF C9 H5 N S
CI RPS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10/565,702

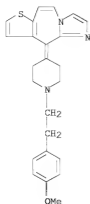
L28 ANSWER 8 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 146340-64-9 REGISTRY
ED Entered STN: 09 Mar 1993
CN 4,7:14,17-Diimino-2,22-metheno-9,12-nitriloazepino[4,3-
b]azacyclononadecine (9CI) (CA INDEX NAME)
MF C23 H15 N5
CI RPS
SR CA Index Guide or Ring Systems Handbook



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10/565,702

L28 ANSWER 7 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 147184-23-4 REGISTRY
ED Entered STN: 23 Apr 1993
CN 10H-Imidazo[1,2-a]thieno[3,2-d]azepine,
10-[1-[2-(4-methoxyphenyl)ethyl]-4-piperidinylidene]- (CA INDEX NAME)
MF C24 H25 N3 O S
CI COM
SR CA



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L28 ANSWER 6 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN

RN 147210-28-4 REGISTRY

ED Entered STN: 27 Apr 1993

CN 5H-Thiazolo[3,2-a]pyrimidin-5-one,
6-[2-[4-(10H-imidazo[1,2-a]thieno[3,2-d]azepin-10-ylidene)-1-
piperidinyl]ethyl]-7-methyl- (CA INDEX NAME)

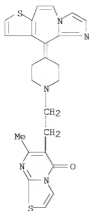
OTHER CA INDEX NAMES:

CN 10H-Imidazo[1,2-a]thieno[3,2-d]azepine, 5H-thiazolo[3,2-a]pyrimidin-5-one
deriv.

MF C24 H23 N5 O S2

CI COM

SR CA



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10/565,702

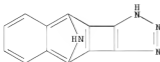
L28 ANSWER 5 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 188965-71-1 REGISTRY
ED Entered STN: 13 May 1997
CN 4H-Pyrrolo[1,2-a]thieno[3,2-d]azepine (9CI) {CA INDEX NAME}
MF C11 H9 N S
CI RPS
SR CA Index Guide or Ring Systems Handbook



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10/565,702

L28 ANSWER 4 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 264151-37-3 REGISTRY
ED Entered STN: 09 May 2000
CN 4,9-Imino-1H-naphtho[2',3':3,4]cyclobuta[1,2-d][1,2,3]triazole (9CI) (CA
INDEX NAME)
MF C12 H6 N4
CI RPS
SR CA Index Guide or Ring Systems Handbook



10/565,702

L28 ANSWER 3 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 279253-81-5 REGISTRY
ED Entered STN: 21 Jul 2000
CN Spiro[cyclohexane-1,10'-[10H]imidazo[1,2-a]thieno[3,2-d]azepine] (9CI)
(CA INDEX NAME)
MF C15 H16 N2 S
CI COM, RPS
SR CA

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10/565,702

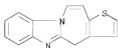
L28 ANSWER 2 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 719305-66-5 REGISTRY
ED Entered STN: 30 Jul 2004
CN 4H-Imidazo[1,2-a]oxazolo[4,5-d]azepine (9CI) (CA INDEX NAME)
MF C9 H7 N3 O
CI RPS
SR CA Index Guide or Ring Systems Handbook



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10/565,702

L28 ANSWER 1 OF 16 REGISTRY COPYRIGHT 2011 ACS on STN
RN 1201795-44-9 REGISTRY
ED Entered STN: 11 Jan 2010
CN 4H-Thieno[3',2':4,5]azepino[1,2-a]benzimidazole (CA INDEX NAME)
MF C14 H10 N2 S
CI RPS
SR CA Index Guide or Ring Systems Handbook



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

=> => d his

(FILE 'HOME' ENTERED AT 14:16:45 ON 17 MAY 2011)

L1 FILE 'CAPLUS' ENTERED AT 14:16:57 ON 17 MAY 2011
1 S US20070015746/PN
SELECT RN L1 1-

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47 S E1-47
L3 10 S L2 AND 5-6-7/SZ
L4 37 S L2 NOT L3
L5 12 S L4 AND 5-7/SZ
L6 25 S L4 NOT L5

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STRUCTURE UPLOADED
L9 50 S L8
L10 3347 S L8 SSS FUL
L11 32 S L10 AND 5-7/SZ
L12 STRUCTURE UPLOADED
L13 2040 S L12 SUB-L10 FUL
L14 1307 S L10 NOT L13

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62 S L14

L16 FILE 'REGISTRY' ENTERED AT 14:35:09 ON 17 MAY 2011
1 S 35165-04-9/RN
L17 1306 S L14 NOT L16

L18 FILE 'CAPLUS' ENTERED AT 14:35:26 ON 17 MAY 2011
59 S L17

L19 FILE 'REGISTRY' ENTERED AT 14:35:51 ON 17 MAY 2011
1 S 57046-64-7/RN
L20 1305 S L17 NOT L19

L21 FILE 'CAPLUS' ENTERED AT 14:36:09 ON 17 MAY 2011
58 S L20
L22 ANALYZE L21 1- RN HIT : 1266 TERMS

L23 FILE 'REGISTRY' ENTERED AT 14:36:29 ON 17 MAY 2011
1 S 629664-81-9/RN
L24 1182 S 2436.13.8/RID
L25 123 S L20 NOT L24

L26 FILE 'CAPLUS' ENTERED AT 14:37:34 ON 17 MAY 2011
39 S L25

L27 FILE 'REGISTRY' ENTERED AT 14:38:11 ON 17 MAY 2011
107 S L25 AND CAPLUS/LC
L28 16 S L25 NOT L27

10/565,702

FILE 'CAPLUS' ENTERED AT 14:40:10 ON 17 MAY 2011
L29 27 S L26 NOT (2011/SO OR 2010/SO OR 2009/SO OR 2008/SO OR 2007/SO
-> d ibib abs hitstr total

L29 ANSWER 1 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2009:1050008 CAPLUS

DOCUMENT NUMBER: 151:236777

TITLE: FXR agonists for treating vitamin D associated diseases

INVENTOR(S): Harnish, Douglas

PATENT ASSIGNEE(S): Wyeth, John, and Brother Ltd., USA

SOURCE: U.S. Pat. Appl. Publ., 53pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20090215748	A1	20090627	US 2008-318039	20081219
PRIORITY APPLN. INFO.:			US 2007-8307P	P 20071220

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Provided are certain methods of treating at least one condition that can be treated by elevating the vitamin D receptor (VDR) activity level in a patient with at least one farnesoid X receptor (FXR) agonist. Also provided are certain methods of modulating levels of Cytochrome P 450, family 27, subfamily B, polypeptide 1 (CYP27B1) and 1 α ,25-dihydroxyvitamin D3 in cells, certain methods of modulating VDR activity levels, certain methods of modulating levels of an extracellular matrix protein, renin angiotensin system (RAS) pathway, parathyroid hormone, serum creatinine, serum albumin, proteinuria, lipid metabolism, renal lipid deposition, mesangial expansion, glomerulosclerosis, kidney inflammation, blood pressure, bone resorption, and bone formation, certain methods of identifying FXR modulators, certain methods of diagnosing the risk that a patient will develop at least one condition that can be treated by elevating the VDR activity level, and certain methods of characterizing the levels of FXR activity in mammals.

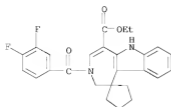
IT 629664-83-1 837429-85-3 837429-86-4
 837429-88-6 837429-90-0,
 6-(3,4-Difluoro-benzoyl)-4,4-dimethyl-5,6-dihydro-4H-thieno[2,3-d]azepine-8-carboxylic acid ethyl ester 837429-91-1
 837429-92-2 837429-93-3 847865-38-7
 847865-39-8 847865-40-1 1088713-88-5

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

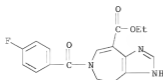
(FXR agonists for treating vitamin D associated diseases)

RN 629664-83-1 CAPLUS

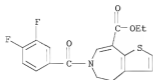
CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopentane]-5-carboxylic acid, 3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



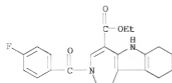
RN 837429-85-3 CAPLUS
 CN Imidazo[4,5-d]azepine-4-carboxylic acid,
 6-(4-fluorobenzoyl)-3,6,7,8-tetrahydro-, ethyl ester (CA INDEX NAME)



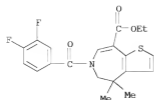
RN 837429-86-4 CAPLUS
 CN 4H-Thieno[2,3-d]azepine-8-carboxylic acid,
 6-(3,4-difluorobenzoyl)-5,6-dihydro-, ethyl ester (CA INDEX NAME)



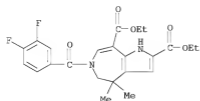
RN 837429-88-6 CAPLUS
 CN Azepino[4,5-b]indole-5-carboxylic acid,
 3-(4-fluorobenzoyl)-1,2,3,6,7,8,9,10-octahydro-, ethyl ester (CA INDEX
 NAME)



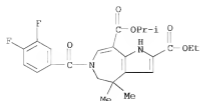
RN 837429-90-0 CAPLUS
 CN 4H-Thieno[2,3-d]azepine-8-carboxylic acid,
 6-(3,4-difluorobenzoyl)-5,6-dihydro-4,4-dimethyl-, ethyl ester (CA INDEX
 NAME)



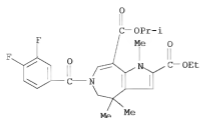
RN 837429-91-1 CAPLUS
 CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
 6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2,8-diethyl
 ester (CA INDEX NAME)



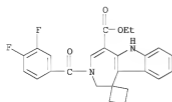
RN 837429-92-2 CAPLUS
 CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
 6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2-ethyl
 8-(1-methylethyl) ester (CA INDEX NAME)



RN 837429-93-3 CAPLUS

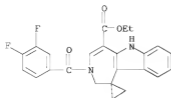
CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-1,4,4-trimethyl-, 2-ethyl
8-(1-methylethyl) ester (CA INDEX NAME)

RN 847865-38-7 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclobutane]-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)

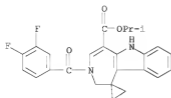
RN 847865-39-8 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopropane]-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



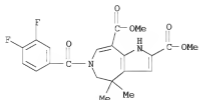
RN 847865-40-1 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopropane]-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-3,6-dihydro-, 1-methylethyl ester (CA INDEX NAME)



RN 1088713-88-5 CAPLUS

CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2,8-dimethyl
ester (CA INDEX NAME)



OS.CITING REF COUNT: 1

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L29 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2009:769550 CAPLUS

DOCUMENT NUMBER: 151:94051

TITLE: Farnesoid X receptor (FXR) agonists for the treatment of nonalcoholic fatty liver and cholesterol gallstone diseases

INVENTOR(S): Zhang, Songwen; Barnish, Douglas; Evans, Mark J.; Wang, Juan

PATENT ASSIGNEE(S): Wyeth, John, and Brother Ltd., USA

SOURCE: U.S. Pat. Appl. Publ., 61pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20090163474	A1	20090625	US 2008-253010	20081016
PRIORITY APPLN. INFO.:			US 2007-960925P	P 20071019

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention provides methods for treating nonalcoholic fatty liver disease with farnesoid X receptor (FXR) agonists. The invention also provides methods for modulating levels of keratinocyte-derived chemokine (KC), alanine aminotransferase (ALT), aspartate aminotransferase (AST), cytokeratin 18 (CK-18), matrix metalloproteinase-9 (MMP-9), matrix metalloproteinase-14 (MMP-14), tissue inhibitor of metalloproteinase 1 (TIMP-1), and Cytochrome P 450 2E1 (CYP2E1); methods for identifying FXR modulators; and methods for treating patients with existing cholesterol gallstone disease.

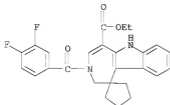
IT 629664-83-1	837429-85-3	837429-86-4
837429-89-7	837429-90-0	837429-91-1
837429-92-2	837429-93-3	847865-38-7
847865-39-8	847865-40-1	1088713-88-5

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(FXR agonist for treatment of nonalcoholic fatty liver and cholesterol gallstone disease)

RN 629664-83-1 CAPLUS

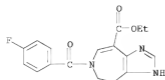
CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopentane]-5-carboxylic acid, 3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



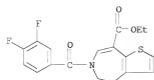
RN 837429-85-3 CAPLUS

CN Imidazo[4,5-d]azepine-4-carboxylic acid,

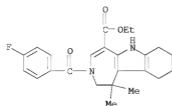
6-(4-fluorobenzoyl)-3,6,7,8-tetrahydro-, ethyl ester (CA INDEX NAME)



RN 837429-86-4 CAPLUS

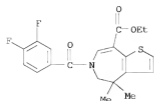
CN 4H-Thieno[2,3-d]azepine-8-carboxylic acid,
6-(3,4-difluorobenzoyl)-5,6-dihydro-, ethyl ester (CA INDEX NAME)

RN 837429-89-7 CAPLUS

CN Azepino[4,5-b]indole-5-carboxylic acid,
3-(4-fluorobenzoyl)-1,2,3,6,7,8,9,10-octahydro-1,1-dimethyl-, ethyl ester
(CA INDEX NAME)

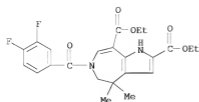
RN 837429-90-0 CAPLUS

CN 4H-Thieno[2,3-d]azepine-8-carboxylic acid,
6-(3,4-difluorobenzoyl)-5,6-dihydro-4,4-dimethyl-, ethyl ester (CA INDEX
NAME)



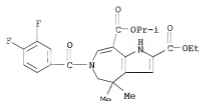
RN 837429-91-1 CAPLUS

CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2,8-diethyl
ester (CA INDEX NAME)



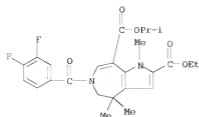
RN 837429-92-2 CAPLUS

CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2-ethyl
8-(1-methylethyl) ester (CA INDEX NAME)

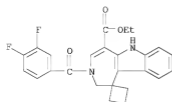


RN 837429-93-3 CAPLUS

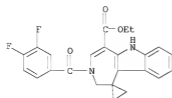
CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-1,4,4-trimethyl-, 2-ethyl
8-(1-methylethyl) ester (CA INDEX NAME)



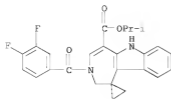
RN 847865-38-7 CAPLUS
 CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclobutane]-5-carboxylic acid,
 3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



RN 847865-39-8 CAPLUS
 CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopropane]-5-carboxylic acid,
 3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)

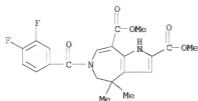


RN 847865-40-1 CAPLUS
 CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopropane]-5-carboxylic acid,
 3-(3,4-difluorobenzoyl)-3,6-dihydro-, 1-methylethyl ester (CA INDEX NAME)



RN 1088713-88-5 CAPLUS

CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2,8-dimethyl
ester (CA INDEX NAME)



OS.CITING REF COUNT: 1

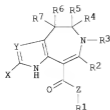
THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L29 ANSWER 3 OF 27 CAPLUS COPYRIGHT 2011 ACS ON STN

ACCESSION NUMBER: 2009:647976 CAPLUS
 DOCUMENT NUMBER: 151:1373
 TITLE: 1,4,5,6-Tetrahydropyrrolo[2,3-d]azepines AND
 -imidazo[4,5-d]azepines as modulators of nuclear
 receptor activity
 INVENTOR(S): Mehlmann, John Francis; Lundquist, Joseph Theodore,
 IV; Mahaney, Paige Erin; Crawley, Matthew Lantz; Kim,
 Callain Younghee
 PATENT ASSIGNEE(S): Wyeth, John, and Brother Ltd., USA
 SOURCE: U.S. Pat. Appl. Publ., 26pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20090137554	A1	20090528	US 2008-255216	20081021
PRIORITY APPLN. INFO.: ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT			US 2007-999990P	P 20071022
OTHER SOURCE(S):			CASREACT 151:1373; MARPAT 151:1373	

GI



AB Disclosed are chemical entities including compds. of Formula (I and pharmaceutically acceptable salts thereof, wherein X is chosen from CN, CF₃, CF₂H, S(O)_nR₈, and S(O)₂N(R₉)R₁₀; n is 1, 2 or 3; Y is chosen from CR₁₁ and N; Z is chosen from O and NH; R₁ is chosen from optionally substituted alkyl, cycloalkyl, etc.; R₂ is H or optionally substituted alkyl; R₃ is chosen from -C(O)R₁₂ and -C(O)N(R₉)R₁₀; R₄, R₅, R₆ and R₇ are independently chosen from H and optionally substituted alkyl; R₈ is chosen from optionally substituted alkyl or cycloalkyl; R₉ and R₁₀ is chosen from H or optionally substituted aryl or heteroaryl, etc.; R₁₁ is H or lower alkyl; R₁₂ is H, optionally substituted aryl or heteroaryl, etc.); compns. comprising one or more such chemical entities; and methods of using one or more such chemical entities for modulating the activity of certain nuclear receptors (e.g., farnesoid X) or for the treatment or prevention of one or more symptoms of disease or disorder related to the activity of those receptors.

IT 1158716-04-1P 1158716-05-2P 1158716-06-3P
 1158716-07-4P 1158716-08-5P 1158716-09-6P

1158716-10-9P 1158716-11-0P 1158716-12-1P

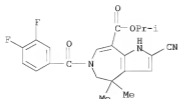
1158716-13-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(tetrahydropyrroloazepines and -imidazoazepines as modulators of farnesoid X receptors for disease treatment)

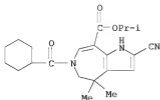
RN 1158716-04-1 CAPLUS

CN Pyrrolo[2,3-d]azepine-8-carboxylic acid,
2-cyano-6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-,
1-methylethyl ester (CA INDEX NAME)



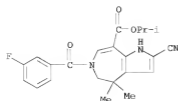
RN 1158716-05-2 CAPLUS

CN Pyrrolo[2,3-d]azepine-8-carboxylic acid,
2-cyano-6-(cyclohexylcarbonyl)-1,4,5,6-tetrahydro-4,4-dimethyl-,
1-methylethyl ester (CA INDEX NAME)



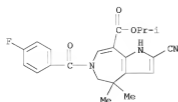
RN 1158716-06-3 CAPLUS

CN Pyrrolo[2,3-d]azepine-8-carboxylic acid,
2-cyano-6-(3-fluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-,
1-methylethyl ester (CA INDEX NAME)



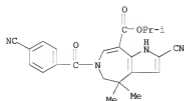
RN 1158716-07-4 CAPLUS

CN Pyrrolo[2,3-d]azepine-8-carboxylic acid,
2-cyano-6-(4-fluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-
1-methylethyl ester (CA INDEX NAME)



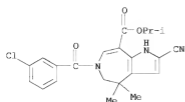
RN 1158716-08-5 CAPLUS

CN Pyrrolo[2,3-d]azepine-8-carboxylic acid,
2-cyano-6-(4-cyanobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl- 1-methylethyl
ester (CA INDEX NAME)



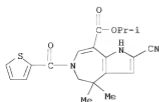
RN 1158716-09-6 CAPLUS

CN Pyrrolo[2,3-d]azepine-8-carboxylic acid,
6-(3-chlorobenzoyl)-2-cyano-1,4,5,6-tetrahydro-4,4-dimethyl-
1-methylethyl ester (CA INDEX NAME)



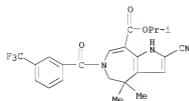
RN 1158716-10-9 CAPLUS

CN Pyrrolo[2,3-d]azepine-8-carboxylic acid,
2-cyano-1,4,5,6-tetrahydro-4,4-dimethyl-6-(2-(thienylcarbonyl)-,
1-methylethyl ester (CA INDEX NAME)



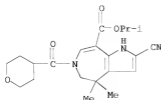
RN 1158716-11-0 CAPLUS

CN Pyrrolo[2,3-d]azepine-8-carboxylic acid,
2-cyano-1,4,5,6-tetrahydro-4,4-dimethyl-6-[3-(trifluoromethyl)benzoyl]-,
1-methylethyl ester (CA INDEX NAME)



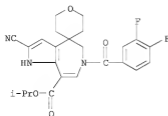
RN 1158716-12-1 CAPLUS

CN Pyrrolo[2,3-d]azepine-8-carboxylic acid,
2-cyano-1,4,5,6-tetrahydro-4,4-dimethyl-6-[(tetrahydro-2H-pyran-4-yl)carbonyl]-,
1-methylethyl ester (CA INDEX NAME)



RN 1158716-13-2 CAPLUS

CN Spiro[4H-pyran-4,4' (1'H)-pyrrolo[2,3-d]azepine]-8'-carboxylic acid,
2'-cyano-6'-(3,4-difluorobenzoyl)-2,3,5,5',6,6'-hexahydro-, 1-methylethyl
ester (CA INDEX NAME)



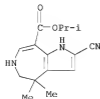
IT 1155659-03-2P 1158716-22-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(tetrahydropyrroloazepines and -imidazoazepines as modulators of
farnesoid X receptors for disease treatment)

RN 1155659-03-2 CAPLUS

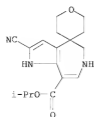
CN Pyrrolo[2,3-d]azepine-8-carboxylic acid,
2'-cyano-1,4,5,6-tetrahydro-4,4'-dimethyl-, 1-methylethyl ester (CA INDEX
NAME)



RN 1158716-22-3 CAPLUS

CN Spiro[4H-pyran-4,4' (1'H)-pyrrolo[2,3-d]azepine]-8'-carboxylic acid,

2'-cyano-2,3,5,5',6,6'-hexahydro-, 1-methylethyl ester (CA INDEX NAME)

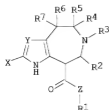


OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L29 ANSWER 4 OF 27 CAPLUS COPYRIGHT 2011 ACS ON STN

ACCESSION NUMBER: 2009:615712 CAPLUS
 DOCUMENT NUMBER: 150:555909
 TITLE: 1,4,5,6,7,8-Hexahydro-pyrrolo[2,3-d]azepines and
 -imidazo[4,5-d]azepines as modulators of nuclear
 receptor activity
 INVENTOR(S): Mehlmann, John Francis; Lundquist, Joseph Theodore,
 IV; Mahaney, Paige Erin; Crawley, Matthew Lantz; Kim,
 Callain Younghee
 PATENT ASSIGNEE(S): Wyeth, John, and Brother Ltd., USA
 SOURCE: U.S. Pat. Appl. Publ., 25pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20090131409	A1	20090521	US 2008-255232	20081021
PRIORITY APPLN. INFO.:			US 2007-11P	P 20071022
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT				
OTHER SOURCE(S):	CASREACT 150:555909; MARPAT 150:555909			
GI				



AB Disclosed are chemical entities including compds. of Formula (I and pharmaceutically acceptable salts thereof, wherein X is chosen from CN, CF₃, CF₂H, S(O)_nR₈, and S(O)₂N(R₉)R₁₀; n is 1, 2 or 3; Y is chosen from CR₁₁ and N; Z is chosen from O and NH; R₁ is chosen from optionally substituted alkyl, cycloalkyl, etc.; R₂ is H or optionally substituted alkyl; R₃ is chosen from -C(O)R₁₂ and -C(O)N(R₉)R₁₀; R₄, R₅, R₆ and R₇ are independently chosen from H and optionally substituted alkyl; R₈ is chosen from optionally substituted alkyl or cycloalkyl; R₉ and R₁₀ is chosen from H or optionally substituted aryl or heteroaryl, etc.; R₁₁ is H or lower alkyl; R₁₂ is H, optionally substituted aryl or heteroaryl, etc.); compns. comprising one or more such chemical entities; and methods of using one or more such chemical entities for modulating the activity of certain nuclear receptors (e.g., farnesoid X) or for the treatment or prevention of one or more symptoms of disease or disorder related to the activity of those receptors.

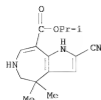
IT 1155659-03-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(hexahydro-pyrroloazepines and -imidazoazepines as modulators of
farnesoid X receptor activity for treatment of disease)

RN 1155659-03-2 CAPLUS

CN Pyrrolo[2,3-d]azepine-8-carboxylic acid,
2-cyano-1,4,5,6-tetrahydro-4,4-dimethyl-, 1-methylethyl ester (CA INDEX
NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L29 ANSWER 5 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2008:1457368 CAPLUS

DOCUMENT NUMBER: 150:16134

TITLE: Farnesoid X receptor (FXR) agonists for reducing lectin-like oxidized low-density lipoprotein receptor 1 (LOX-1) expression, and therapeutic use

INVENTOR(S): Harnish, Douglas; Zhang, Songwen

PATENT ASSIGNEE(S): Wyeth, John, and Brother Ltd., USA

SOURCE: U.S. Pat. Appl. Publ., 26pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080300235	A1	20081204	US 2008-130322	20080530
PRIORITY APPLN. INFO.:			US 2007-924822P	P 20070601

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention provides methods for treating at least one disease state characterized by elevated expression of the lectin-like oxidized low-density lipoprotein receptor 1 (LOX-1) in a patient with farnesoid X receptor (FXR) agonists. Also provided are methods for reducing expression of LOX-1 in a cell with FXR agonists.

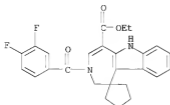
IT 629664-83-1 837429-85-3,
 6-(4-Fluorobenzoyl)-3,6,7,8-tetrahydroimidazo[4,5-d]azepine-4-carboxylic acid ethyl ester 837429-86-4,
 6-(3,4-Difluorobenzoyl)-5,6-dihydro-4H-thieno[2,3-d]azepine-8-carboxylic acid ethyl ester 837429-88-6,
 3-(4-Fluorobenzoyl)-1,2,3,6,7,8,9,10-octahydroazepino[4,5-b]indole-5-carboxylic acid ethyl ester 837429-89-7,
 3-(4-Fluorobenzoyl)-1,1-dimethyl-1,2,3,6,7,8,9,10-octahydroazepino[4,5-b]indole-5-carboxylic acid ethyl ester 837429-90-0
 837429-91-1, 6-(3,4-Difluorobenzoyl)-4,4-dimethyl-1,4,5,6-tetrahydropyrrolo[2,3-d]azepine-2,8-dicarboxylic acid diethyl ester 837429-92-2 837429-93-3 847865-38-7
 847865-39-8 847865-40-1 1088713-88-5

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

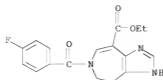
(FXR agonists for reducing LOX-1 expression, and therapeutic use)

RN 629664-83-1 CAPLUS

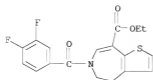
CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopentane]-5-carboxylic acid, 3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



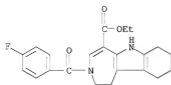
RN 837429-85-3 CAPLUS

CN Imidazo[4,5-d]azepine-4-carboxylic acid,
6-(4-fluorobenzoyl)-3,6,7,8-tetrahydro-, ethyl ester (CA INDEX NAME)

RN 837429-86-4 CAPLUS

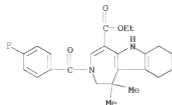
CN 4H-Thieno[2,3-d]azepine-8-carboxylic acid,
6-(3,4-difluorobenzoyl)-5,6-dihydro-, ethyl ester (CA INDEX NAME)

RN 837429-88-6 CAPLUS

CN Azepino[4,5-b]indole-5-carboxylic acid,
3-(4-fluorobenzoyl)-1,2,3,6,7,8,9,10-octahydro-, ethyl ester (CA INDEX NAME)

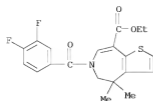
RN 837429-89-7 CAPLUS

CN Azepino[4,5-b]indole-5-carboxylic acid,
3-(4-fluorobenzoyl)-1,2,3,6,7,8,9,10-octahydro-1,1-dimethyl-, ethyl ester
(CA INDEX NAME)



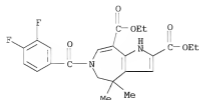
RN 837429-90-0 CAPLUS

CN 4H-Thieno[2,3-d]azepine-8-carboxylic acid,
6-(3,4-difluorobenzoyl)-5,6-dihydro-4,4-dimethyl-, ethyl ester (CA INDEX
NAME)



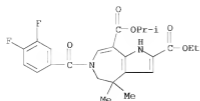
RN 837429-91-1 CAPLUS

CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2,8-diethyl
ester (CA INDEX NAME)

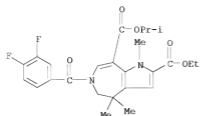


RN 837429-92-2 CAPLUS

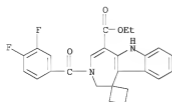
CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2-ethyl
8-(1-methylethyl) ester (CA INDEX NAME)



RN 837429-93-3 CAPLUS

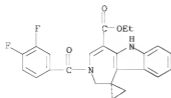
CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-1,4,4-trimethyl-, 2-ethyl
8-(1-methylethyl) ester (CA INDEX NAME)

RN 847865-38-7 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclobutane]-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)

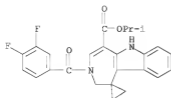
RN 847865-39-8 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopropane]-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



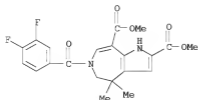
RN 847865-40-1 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopropane]-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-3,6-dihydro-, 1-methylethyl ester (CA INDEX NAME)



RN 1088713-88-5 CAPLUS

CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2,8-dimethyl
ester (CA INDEX NAME)



OS.CITING REF COUNT: 1

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L29 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2011 ACS ON STN

ACCESSION NUMBER: 2008:1455334 CAPLUS
 DOCUMENT NUMBER: 150:16058
 TITLE: FXR agonists for the treatment of malignancies
 INVENTOR(S): Hartman, Helen B.; Evans, Mark J.
 PATENT ASSIGNEE(S): Wyeth, John, and Brother Ltd., USA
 SOURCE: U.S. Pat. Appl. Publ., 25pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

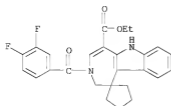
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080299118	A1	20081204	US 2008-130221	20080530
PRIORITY APPLN. INFO.:			US 2007-924823P	P 20070601

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Provided are certain methods of treating malignancies with farnesoid X receptor agonists. Also provided are certain methods of inducing RECK gene expression with farnesoid X receptor agonists and methods of reducing at least one feature of a cell with farnesoid X receptor agonists.

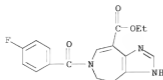
IT 629664-83-1 837429-85-3,
 6-(4-Fluorobenzoyl)-3,6,7,8-tetrahydroimidazo[4,5-D]azepine-4-carboxylic acid ethyl ester 837429-86-4,
 6-(3,4-Difluorobenzoyl)-5,6-dihydro-4H-thieno[2,3-D]azepine-8-carboxylic acid ethyl ester 837429-88-6,
 3-(4-Fluorobenzoyl)-1,2,3,6,7,8,9,10-octahydroazepino[4,5-b]indole-5-carboxylic acid ethyl ester 837429-89-7,
 3-(4-Fluorobenzoyl)-1,1-dimethyl-1,2,3,6,7,8,9,10-octahydroazepino[4,5-b]indole-5-carboxylic acid ethyl ester 837429-90-0,
 6-(3,4-Difluorobenzoyl)-4,4-dimethyl-5,6-dihydro-4H-thieno[2,3-d]azepine-8-carboxylic acid ethyl ester 837429-91-1,
 6-(3,4-Difluorobenzoyl)-4,4-dimethyl-1,4,5,6-tetrahydropyrrolo[2,3-d]azepine-2,8-dicarboxylic acid diethyl ester 837429-92-2
 837429-93-3 847865-38-7 847865-39-8
 847865-40-1 1088713-88-5

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (farnesoid X receptor agonists for treatment of malignancies by inducing RECK gene expression)
 RN 629664-83-1 CAPLUS
 CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopentane]-5-carboxylic acid, 3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



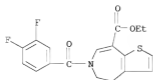
RN 837429-85-3 CAPLUS

CN Imidazo[4,5-d]azepine-4-carboxylic acid,
6-(4-fluorobenzoyl)-3,6,7,8-tetrahydro-, ethyl ester (CA INDEX NAME)



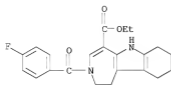
RN 837429-86-4 CAPLUS

CN 4H-Thieno[2,3-d]azepine-8-carboxylic acid,
6-(3,4-difluorobenzoyl)-5,6-dihydro-, ethyl ester (CA INDEX NAME)



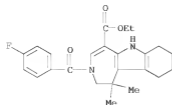
RN 837429-88-6 CAPLUS

CN Azepino[4,5-b]indole-5-carboxylic acid,
3-(4-fluorobenzoyl)-1,2,3,6,7,8,9,10-octahydro-, ethyl ester (CA INDEX NAME)



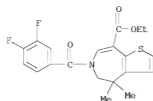
RN 837429-89-7 CAPLUS

CN Azepino[4,5-b]indole-5-carboxylic acid,
3-(4-fluorobenzoyl)-1,2,3,6,7,8,9,10-octahydro-1,1-dimethyl-, ethyl ester
(CA INDEX NAME)



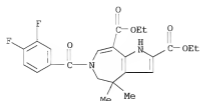
RN 837429-90-0 CAPLUS

CN 4H-Thieno[2,3-d]azepine-8-carboxylic acid,
6-(3,4-difluorobenzoyl)-5,6-dihydro-4,4-dimethyl-, ethyl ester (CA INDEX
NAME)



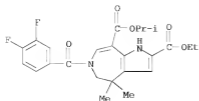
RN 837429-91-1 CAPLUS

CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2,8-diethyl
ester (CA INDEX NAME)

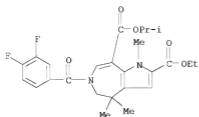


RN 837429-92-2 CAPLUS

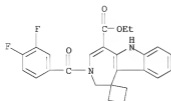
CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2-ethyl
8-(1-methylethyl) ester (CA INDEX NAME)



RN 837429-93-3 CAPLUS

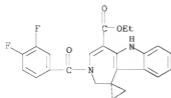
CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-1,4,4-trimethyl-, 2-ethyl
8-(1-methylethyl) ester (CA INDEX NAME)

RN 847865-38-7 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclobutane]-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)

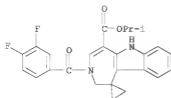
RN 847865-39-8 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopropane]-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



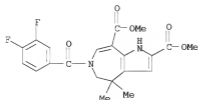
RN 847865-40-1 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopropane]-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-3,6-dihydro-, 1-methylethyl ester (CA INDEX NAME)



RN 1088713-88-5 CAPLUS

CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2,8-dimethyl
ester (CA INDEX NAME)



OS.CITING REF COUNT: 1

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L29 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2011 ACS ON STN

ACCESSION NUMBER: 2005:220132 CAPLUS

DOCUMENT NUMBER: 142:298092

TITLE: Preparation of azepino[4,5-b]indole derivatives as modulators of nuclear receptors

INVENTOR(S): Busch, Brett; Platt, Brenton T.; Gu, Xiao-Hui; Martin, Richard; Mohan, Raju; Wang, Tie-Lin; Wu, Jason H.

PATENT ASSIGNEE(S): X-CEPT Therapeutics Inc., USA; Exelixis, Inc.

SOURCE: U.S. Pat. Appl. Publ., 106 pp., Cont.-in-part of U.S. Ser. No. 447,302.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

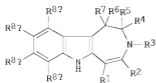
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050054634	A1	20050310	US 2003-895431	20031202
US 7595311	B2	20090929		
US 20040023947	A1	20040205	US 2003-447302	20030527
US 7485634	B2	20090203		
AU 2004297198	A1	20050623	AU 2004-297198	20041201
CA 2555279	A1	20050623	CA 2004-2555279	20041201
WO 2005056554	A2	20050623	WO 2004-US40352	20041201
WO 2005056554	A3	20050818		
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1692136	A2	20060823	EP 2004-812795	20041201
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CN 1914207	A	20070214	CN 2004-80041235	20041201
BR 2004017260	A	20070306	BR 2004-17260	20041201
JP 2007513168	T	20070524	JP 2006-542742	20041201
NZ 548179	A	20091127	NZ 2004-548179	20041201
ZA 2006004352	A	20081231	ZA 2006-4352	20060529
MX 2006006140	A	20061110	MX 2006-6140	20060531
IN 2006KN01497	A	20070504	IN 2006-KN1497	20060601
KR 2006124662	A	20061205	KR 2006-7013217	20060630
NO 2006003080	A	20060823	NO 2006-3080	20060703
US 20090326218	A1	20091231	US 2009-362269	20090129
US 20100173824	A1	20100708	US 2009-535453	20090804
JP 2010229148	A	20101014	JP 2010-135620	20100614
PRIORITY APPLN. INFO.:				P 20020524
				A2 20030527
				A3 20030527
				A 20031202

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S):

CASREACT 142:298092; MARPAT 142:298092

GI



AB The title compds. (I) [R1 = -C(J)OR14, -C(J)SR14, (un)substituted -C(J)NH2; J = O, S, (un)substituted NH; R2 = H, halo, (un)substituted alkyl; R3 = -C(O)R9; R4, R5, R6 and R7 are together selected from (a), (b), etc. below: (a) R4, R5 = H or halo and R6, R7 = halo, each (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, aryl, aralkyl, heteroaryl, or heteroaralkyl, etc.; or R6 and R7, together with the carbon atom to which they are attached, form each (un)substituted cycloalkyl, heterocyclyl, cycloalkenyl, alkylidene, cycloalkylidene, heterocyclylidene, aralkylidene or substituted heteroaralkylidene; (b) R4, R5 = halo, each (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, aryl, heteroaryl, or heteroaralkyl, etc.; or R4 and R5, together with the carbon atom to which they are attached, form (un)substituted cycloalkyl, heterocyclyl, cycloalkenyl, alkylidene, cycloalkylidene, heterocyclylidene, aralkylidene or heteroaralkylidene, and R6, R7 = H or halo; R8a, R8b, R8c, R8d = H, halo, pseudohalo, cyano, azido, amidino, guanidino, each (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, aryl, aralkyl, heteroaryl, or heteroaralkyl, etc.; R14 = each (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, etc.] are prepared. These compds. modulate nuclear receptors, in particular farnesoid X receptor and are agonists, partial agonists, inverse agonists, partial antagonists, or antagonists of farnesoid X receptor. They are useful for the treatment, prevention, or amelioration of one or more symptoms of disease or disorder directly or indirectly related to the activity of the above receptors, including hyperlipidemia, hypercholesterolemia, hypertriglyceridemia, dyslipidemia, lipodystrophy, atherosclerosis, atherosclerotic disease, atherosclerotic disease events, atherosclerotic cardiovascular disease, Syndrome X, diabetes mellitus, type II diabetes, insulin insensitivity, hyperglycemia, cholestasis and obesity. Thus, to a solution of Et 1,2,3,6-tetrahydroazepino[4,5-b]indole-5-carboxylate (52 mg, 0.2 mmol) in CH2Cl2 was added 4-fluorobenzoyl chloride (36 μ L, 0.2 mmol) and TEA (56 μ L, 0.4 mmol) and the mixture was shaken overnight at 20°, treated with Trisamine resin (50 mg), and shaken for 2 h at 20°. The resin was removed by filtration through a Florisil cartridge. Evaporation of solvent gave a crude product, which was purified by trituration with methanol to give Et 3-(4-fluorobenzoyl)-1,2,3,6-tetrahydroazepino[4,5-b]indole-5-carboxylate. Et 3-(3,4-difluorobenzoyl)-1-methyl-1,2,3,6-tetrahydroazepino[4,5-b]indole-5-carboxylate was administered daily by

oral gage for 7 days to young adult male mice. Plasma total cholesterol and triglyceride levels were significantly lowered.

IT 629662-33-5P 629664-84-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of azepino[4,5-b]indole derivs. as modulators of nuclear receptors, in particular farnesoid X receptor)

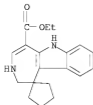
RN 629662-32-5 CAPLUS

CN 1H-Benzofuro[2,3-d]azepine-5-carboxylic acid, 2,3-dihydro-, ethyl ester (CA INDEX NAME)



RN 629664-84-2 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopentane]-5-carboxylic acid, 3,6-dihydro-, ethyl ester (CA INDEX NAME)



IT 629662-32-4P 629662-34-6P 629663-80-5P

629664-83-1P 847865-38-7P 847865-39-8P

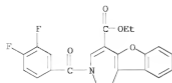
847865-40-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of azepino[4,5-b]indole derivs. as modulators of nuclear receptors, in particular farnesoid X receptor)

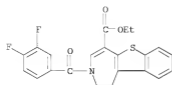
RN 629662-32-4 CAPLUS

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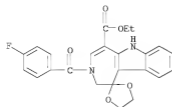
RN 629662-34-6 CAPLUS

CN 1H-[1]Benzothieno[2,3-d]azepine-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-2,3-dihydro-, ethyl ester (CA INDEX NAME)



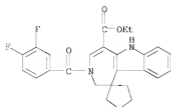
RN 629663-80-5 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),2'-[1,3]dioxolane]-5-carboxylic acid,
3-(4-fluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



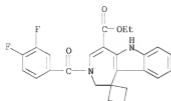
RN 629664-83-1 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopentane]-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



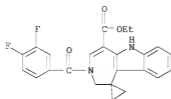
RN 847865-38-7 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclobutane]-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



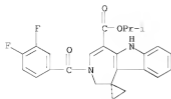
RN 847865-39-8 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopropane]-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



RN 847865-40-1 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopropane]-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-3,6-dihydro-, 1-methylethyl ester (CA INDEX NAME)



OS.CITING REF COUNT: 9

THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD
(11 CITINGS)

L29 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2005:99333 CAPLUS

DOCUMENT NUMBER: 142:198048

TITLE: Azepine derivatives as pharmaceutical agents, specifically as farnesoid X receptor ligands, and their preparation, pharmaceutical compositions, and use in the treatment of lipid disorders, atherosclerosis, and diabetes

INVENTOR(S): Martin, Richard; Wang, Tie-Lin; Flatt, Brenton T.; Gu, Xiao-Hui

PATENT ASSIGNEE(S): X-Ceptor Therapeutics Inc., USA

SOURCE: PCT Int. Appl., 133 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

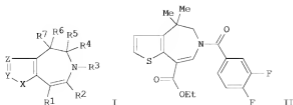
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005009387	A2	20050203	WO 2004-US23745	20040723
WO 2005009387	A3	20060302		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004259009	A1	20050203	AU 2004-259009	20040723
CA 2532798	A1	20050203	CA 2004-2532798	20040723
EP 1648408	A1	20060426	EP 2004-779004	20040723
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR			
BR 2004012262	A	20060919	BR 2004-12262	20040723
CN 1852748	A	20061025	CN 2004-80027076	20040723
JP 2006528637	T	20061221	JP 2006-521272	20040723
JP 4679517	B2	20110427		
KR 2006052867	A	20060519	KR 2006-7001566	20060123
MX 2006000875	A	20060907	MX 2006-875	20060123
NO 2006000871	A	20060424	NO 2006-871	20060222
US 20070015746	A1	20070118	US 2006-565702	20060913
PRIORITY APPLN. INFO.:			US 2003-489854P	P 20030723
			WO 2004-US23745	W 20040723

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): CASREACT 142:198048; MARPAT 142:198048

GI



AB Comps., compns., and methods are provided for modulating the activity of farnesoid X receptors, and for the treatment, prevention, or amelioration of one or more symptoms of diseases or disorders related to the activity of the receptors. In particular, compds. I are disclosed [wherein: X = O, S(O)0-2, NH or its alkyl, acylated, oxyacylated, or sulfonylated derivs.; Y = (un)substituted CH or N; Z = (un)substituted CH or N; or YZ bond is fused to a carbo- or heterocyclic ring, but not benzo or naphtho; R1, R2, R4-R7 = H, halo, (un)substituted alk(en/yn)yl, (hetero)aryl, numerous functional groups; R3 = H, (un)substituted alk(en/yn)yl, (hetero)aryl, numerous functional groups; R4R5 and/or R6R7 may form oxo, thioxo, (un)substituted imino or oxime or hydrazone, or an exocyclic double bond; or R4R5, R4R6, R4R7, R5R6, R5R7, and/or R6R7 may form ring(s); including isomer(s), solvates, polymorphs, prodrugs, and pharmaceutically acceptable salts]. Fifteen synthetic examples and several biol. examples are given. For instance, thiophene-3-acetonitrile was converted to invention compound II in four steps: (1) di- α -methylation using NaH and MeI in DMF; (2) reduction of the nitrile to a primary amine using LiAlH₄; (3) cyclocondensation of the amine with Et bromopyruvate to form the azepine ring; and (4) N-acylation using 3,4-difluorobenzoyl chloride. II exhibited agonist activity at 100 nM or less, with > 100% efficacy (vs. CDCA), as measured in a co-transfection assay using full length human farnesoid X receptor.

IT 837429-84-2P, 3,6,7,8-Tetrahydroimidazo[4,5-d]azepine-4-carboxylic acid ethyl ester
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (drug candidate; preparation of azepine derivs. as farnesoid X receptor ligands for treatment of lipid disorders, atherosclerosis, and diabetes)
 RN 837429-84-2 CAPLUS
 CN Imidazo[4,5-d]azepine-4-carboxylic acid, 3,6,7,8-tetrahydro-, ethyl ester (CA INDEX NAME)

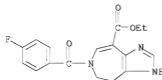


IT 837429-85-3P, 6-(4-Fluorobenzoyl)-3,6,7,8-tetrahydroimidazo[4,5-d]azepine-4-carboxylic acid ethyl ester 837429-86-4P, 6-(3,4-Difluorobenzoyl)-5,6-dihydro-4H-thieno[2,3-d]azepine-8-carboxylic acid ethyl ester 837429-88-6P, 3-(4-Fluorobenzoyl)-1,2,3,6,7,8,9,10-octahydroazepino[4,5-b]indole-5-carboxylic acid ethyl ester 837429-89-7P, 3-(4-Fluorobenzoyl)-1,1-dimethyl-1,2,3,6,7,8,9,10-octahydroazepino[4,5-b]indole-5-carboxylic acid ethyl ester 837429-90-0P, 6-(3,4-Difluorobenzoyl)-4,4-dimethyl-5,6-dihydro-4H-thieno[2,3-d]azepine-8-carboxylic acid ethyl ester 837429-91-1P, 6-(3,4-Difluorobenzoyl)-4,4-dimethyl-1,4,5,6-tetrahydropyrrolo[2,3-d]azepine-2,8-dicarboxylic acid diethyl ester 837429-92-2P, 6-(3,4-Difluorobenzoyl)-4,4-dimethyl-1,4,5,6-tetrahydropyrrolo[2,3-d]azepine-2,8-dicarboxylic acid 2-ethyl ester 8-isopropyl ester 837429-93-3P, 6-(3,4-Difluorobenzoyl)-1,4,4-trimethyl-1,4,5,6-tetrahydropyrrolo[2,3-d]azepine-2,8-dicarboxylic acid 2-ethyl ester 8-isopropyl ester
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of azepine derivs. as farnesoid X receptor ligands for treatment of lipid disorders, atherosclerosis, and diabetes)

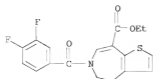
RN 837429-85-3 CAPLUS

CN Imidazo[4,5-d]azepine-4-carboxylic acid,
 6-(4-fluorobenzoyl)-3,6,7,8-tetrahydro-, ethyl ester (CA INDEX NAME)

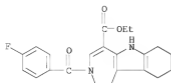


RN 837429-86-4 CAPLUS

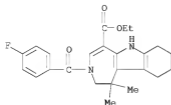
CN 4H-Thieno[2,3-d]azepine-8-carboxylic acid,
 6-(3,4-difluorobenzoyl)-5,6-dihydro-, ethyl ester (CA INDEX NAME)



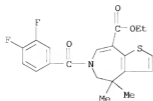
RN 837429-88-6 CAPLUS
 CN Azepino[4,5-b]indole-5-carboxylic acid,
 3-(4-fluorobenzoyl)-1,2,3,6,7,8,9,10-octahydro-, ethyl ester (CA INDEX
 NAME)



RN 837429-89-7 CAPLUS
 CN Azepino[4,5-b]indole-5-carboxylic acid,
 3-(4-fluorobenzoyl)-1,2,3,6,7,8,9,10-octahydro-1,1-dimethyl-, ethyl ester
 (CA INDEX NAME)

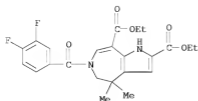


RN 837429-90-0 CAPLUS
 CN 4H-Thieno[2,3-d]azepine-8-carboxylic acid,
 6-(3,4-difluorobenzoyl)-5,6-dihydro-4,4-dimethyl-, ethyl ester (CA INDEX
 NAME)



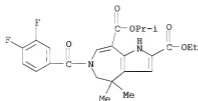
RN 837429-91-1 CAPLUS

CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2,8-diethyl
ester (CA INDEX NAME)



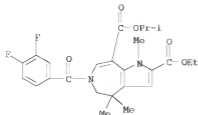
RN 837429-92-2 CAPLUS

CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-4,4-dimethyl-, 2-ethyl
8-(1-methylethyl) ester (CA INDEX NAME)



RN 837429-93-3 CAPLUS

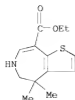
CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
6-(3,4-difluorobenzoyl)-1,4,5,6-tetrahydro-1,4,4-trimethyl-, 2-ethyl
8-(1-methylethyl) ester (CA INDEX NAME)



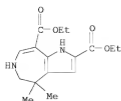
IT 837429-95-5P, 5,6-Dihydro-4H-thieno[2,3-d]azepine-8-carboxylic acid ethyl ester 837429-96-6P, 4,4-Dimethyl-5,6-dihydro-4H-thieno[2,3-d]azepine-8-carboxylic acid ethyl ester 837430-02-1P, 4,4-Dimethyl-1,4,5,6-tetrahydropyrrolo[2,3-d]azepine-2,8-dicarboxylic acid diethyl ester 837430-03-2P, 4,4-Dimethyl-1,4,5,6-tetrahydropyrrolo[2,3-d]azepine-2,8-dicarboxylic acid 2-ethyl ester 8-isopropyl ester 837430-05-4P, 1,4,4-Trimethyl-1,4,5,6-tetrahydropyrrolo[2,3-d]azepine-2,8-dicarboxylic acid 2-ethyl ester 8-isopropyl ester
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of azepine derivs. as farnesoid X receptor ligands for treatment of lipid disorders, atherosclerosis, and diabetes)
 RN 837429-95-5 CAPLUS
 CN 4H-Thieno[2,3-d]azepine-8-carboxylic acid, 5,6-dihydro-, ethyl ester (CA INDEX NAME)



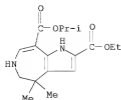
RN 837429-96-6 CAPLUS
 CN 4H-Thieno[2,3-d]azepine-8-carboxylic acid, 5,6-dihydro-4,4-dimethyl-, ethyl ester (CA INDEX NAME)



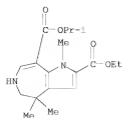
RN 837430-02-1 CAPLUS
 CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
 1,4,5,6-tetrahydro-4,4-dimethyl-, 2,8-diethyl ester (CA INDEX NAME)



RN 837430-03-2 CAPLUS
 CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
 1,4,5,6-tetrahydro-4,4-dimethyl-, 2-ethyl 8-(1-methylethyl) ester (CA
 INDEX NAME)



RN 837430-05-4 CAPLUS
 CN Pyrrolo[2,3-d]azepine-2,8-dicarboxylic acid,
 1,4,5,6-tetrahydro-1,4,4-trimethyl-, 2-ethyl 8-(1-methylethyl) ester (CA
 INDEX NAME)



OS,CITING REF COUNT:	3	THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
REFERENCE COUNT:	1	THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 9 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2004:848383 CAPLUS

DOCUMENT NUMBER: 142:6329

TITLE: Synthesis of the sterically fixed biliverdin derivative bearing the Z-anti C/D-ring component

AUTHOR(S): Hamman, Mostafa A. S.; Murata, Yasue; Kinoshita, Hideki; Inomata, Katsuhiko

CORPORATE SOURCE: Division of Material Sciences, Graduate School of Natural Science and Technology, Kanazawa University, Kanazawa, 920-1192, Japan

SOURCE: Chemistry Letters (2004), 33(10), 1258-1259

CODEN: CMLTAG; ISSN: 0366-7022

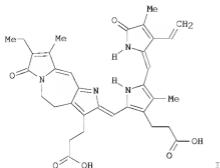
PUBLISHER: Chemical Society of Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 142:6329

GI



AB A sterically locked biliverdin derivative I was synthesized by developing an efficient method for the preparation of Z-anti C/D-ring component toward investigation of the stereochem. and function of the phytochrome chromophores.

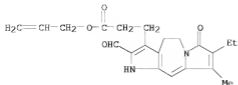
IT 797050-86-3P 797050-93-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of the sterically fixed biliverdin derivative bearing the Z-anti C/D-ring component)

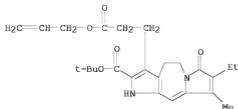
RN 797050-86-3 CAPLUS

CN Dipyrrolo[1,2-a:2',3'-d]azepine-3-propanoic acid, 8-ethyl-2-formyl-1,4,5,7-tetrahydro-9-methyl-7-oxo-, 2-propen-1-yl ester (CA INDEX NAME)



RN 797050-93-2 CAPLUS

CN Dipyrrolo[1,2-a:2',3'-d]azepine-3-propanoic acid,
2-[(1,1-dimethylethoxy)carbonyl]-8-ethyl-1,4,5,7-tetrahydro-9-methyl-7-oxo-
, 2-propen-1-yl ester (CA INDEX NAME)



OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS
RECORD (12 CITINGS)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 10 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2003:951028 CAPLUS

DOCUMENT NUMBER: 140:16715

TITLE: Preparation of azepinoindole and pyridoindole derivatives as modulators of farnesoid X and/or orphan nuclear receptors

INVENTOR(S): Martin, Richard; Wang, Tie-Lin; Flatt, Brenton Todd;

Ga, Xiao-Hui; Griffith, Ronald

PATENT ASSIGNEE(S): X-Ceptor Therapeutics, Inc., USA

SOURCE: PCT Int. Appl., 268 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

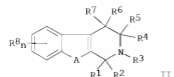
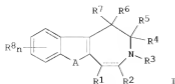
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003099821	A1	20031204	WO 2003-US16767	20030527
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
TW 329111	B	20100621	TW 2003-114049	20030523
CA 2485909	A1	20031204	CA 2003-2485909	20030527
CA 2485909	C	20110222		
AU 2003243328	A1	20031212	AU 2003-243328	20030527
AU 2003243328	B2	20100520		
EP 1532153	A1	20050525	EP 2003-755523	20030527
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
JP 2005531585	T	20051020	JP 2004-507478	20030527
JP 4646293	B2	20110309		
JP 2010229148	A	20101014	JP 2010-135620	20100614
PRIORITY APPLN. INFO.:			US 2002-383574P	P 20020524
			JP 2004-507478	A3 20030527
			WO 2003-US16767	W 20030527

OTHER SOURCE(S): MARPAT 140:16715

GI



AB The present invention is directed to azepinoindole and pyridoindole derivs. (shown as I and II; variables defined below; e.g. Et 1,2,3,6-tetrahydroazepino[4,5-b]indole-5-carboxylate). These compds. were used in pharmaceutical compns. and methods for modulating the activity of farnesoid X receptor and/or orphan nuclear receptors. A farnesoid X receptor/ECREX7 co-transfection assay and a TR-FRET assay were used to establish the EC50/IC50 values for potency and percent activity or inhibition for efficacy; efficacy defines the activity of a compound relative to a high control (chenodeoxycholic acid, CDCA) or a low control (DMSO/vehicle). Most of the compds. disclosed and tested exhibited activity in at least one of the assays (EC50 or IC50 <10 μ M; most showed activity at <1 μ M, e.g. Fr 3-(4-fluorobenzoyl)-2-methyl-1,2,3,6-tetrahydroazepino[4,5-b]indole-5-carboxylate exhibited agonist activity <1 μ M EC50 and >100 % efficacy and 8-(3-cyclopropyl-1-methylureido)-3-(4-fluorobenzoyl)-1,1-dimethyl-1,2,3,6-tetrahydroazepino[4,5-b]indole-5-carboxylic acid Et ester exhibited antagonist activity with IC50 <100 nM and 100 % inhibition. Although the methods of preparation are not claimed, 74 example preps. of I and II and characterization data for many more I and II are included. For I and II: n = 0-4; A is -N(R9)-, -O- or -S(O)t- (t = 0-2); R1 and R2 = H, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl, aralkyl, heteroaralkyl, -OR14, -SR14, -N(R15)R16, -N(R15)S(O)2R43; -N(R17)N(R15)R16, -N(R17)N(R15)S(O)2R43, -C(O)R18, -C(O)OR14, -C(S)OR14, -C(O)SR14, -C(O)N(R15)R16, -C(O)N(R15)S(O)2R43, -C(O)N(R15)N:R16 and -C(O)N(R17)N(R15)R16; or -C(O)N(R17)N(R15)S(O)2R43; or R1 and R2, together with the atom to which they are attached, form a cycloalkyl, heterocyclyl, aryl, or heteroaryl ring. R3 is H, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, aralkyl, heteroaryl, heterocyclyl, heteroaralkyl, -C(O)R10, -C(O)OR10, -S(O)2R10, -C(O)N(R11)R12, -C(O)N(R11)S(O)2R43, -C(O)N(R13)N(R11)R12, -C(O)N(R13)N(R11)S(O)2R43, -N(R13)C(O)N(R11)R12, -N(R13)C(O)N(R11)S(O)2R43, -N(R10)C(O)N(R13)N(R11)R12, -N(R10)C(O)N(R13)N(R11)S(O)2R43, -N(R13)C(O)OR10, -P(O)OR10, or -P(O)(OR19)OR12. R4, R5, R6 and R7 = H, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl, aralkyl, heteroaralkyl, -OR14, -SR14, -S(O)2R14, -N(R15)R16, -N(R15)S(O)2R43, -C(O)R18, -C(O)OR20, -C(O)N(R21)R22, -C(O)N(R21)S(O)2R43; -C(O)N(R42)N(R21)R22; or -C(O)N(R42)N(R21)S(O)2R43; or R4 and R5, or R4

and R6, or R4 and R7, or R5 and R6, or R5 and R7, or R6 and R7, together with the C atom to which they are attached, form a cycloalkyl, heterocyclyl, or cycloalkenyl ring, or together form a double bond and the others of R4, R5, R6 and R7 are as described above; or R6 and R7 together form an oxo, thioxo, imine, oxime or a hydrazone, or R6 and R7, together with the C atom to which they are attached, form an exocyclic double bond, and R4 and R5 are as described above. R8 = alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl, halo, pseudohalo, cyano, nitro, -C(O)OR23, -C(O)N(R24)R25, -C(O)N(R24)S(O)2R43, -C(O)R26, -OR27, -SR27, -C(S)OR23, -C(S)SR23, -N(R28)R29, and -N(R28)S(O)2R43, or two adjacent R8 groups, together with the carbons to which they are attached, form an aryl, cycloalkyl, heterocyclyl or heteroaryl; addnl. details including provisos are given in the claims.

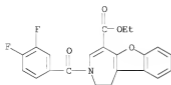
IT 629662-32-4P 629662-34-6P 629663-80-5P
629664-83-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of azepinoindole and pyridoindole derivs. as modulators of farnesoid X and/or orphan nuclear receptors)

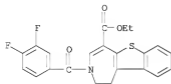
RN 629662-32-4 CAPLUS

CN 1H-Benzofuro[2,3-d]azepine-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-2,3-dihydro-, ethyl ester (CA INDEX NAME)



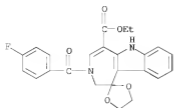
RN 629662-34-6 CAPLUS

CN 1H-[1]Benzothieno[2,3-d]azepine-5-carboxylic acid,
3-(3,4-difluorobenzoyl)-2,3-dihydro-, ethyl ester (CA INDEX NAME)



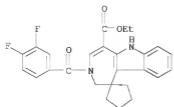
RN 629663-80-5 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),2'-[1,3]dioxolane]-5-carboxylic acid,
3-(4-fluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



RN 629664-83-1 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopentane]-5-carboxylic acid, 3-(3,4-difluorobenzoyl)-3,6-dihydro-, ethyl ester (CA INDEX NAME)



IT 629662-33-5P 629664-84-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of azepinoindole and pyridoindole derivs. as modulators of farnesoid X and/or orphan nuclear receptors)

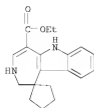
RN 629662-33-5 CAPLUS

CN 1H-Benzofuro[2,3-d]azepine-5-carboxylic acid, 2,3-dihydro-, ethyl ester (CA INDEX NAME)



RN 629664-84-2 CAPLUS

CN Spiro[azepino[4,5-b]indole-1(2H),1'-cyclopentane]-5-carboxylic acid, 3,6-dihydro-, ethyl ester (CA INDEX NAME)



OS.CITING REF COUNT:	9	THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)
REFERENCE COUNT:	10	THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2000:441796 CAPLUS

DOCUMENT NUMBER: 133:74016

TITLE: preparation of spirotricyclic compounds as H1 receptor antagonists

INVENTOR(S): Janssens, Frans Eduard; Leenaerts, Joseph Elisabeth

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.

SOURCE: PCT Int. Appl., 64 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000037470	A1	20000629	WO 1999-EP10176	19991215
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2355939	A1	20000629	CA 1999-2355939	19991215
CA 2355939	C	20101214		
AU 2000030412	A	20000712	AU 2000-30412	19991215
AU 764820	B2	20030828		
BR 9916371	A	20010918	BR 1999-16371	19991215
EP 1144411	A1	20011017	EP 1999-964625	19991215
EP 1144411	B1	20050427		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 2001001711	T2	20011221	TR 2001-1711	19991215
HU 2001004779	A2	20020429	HU 2001-4779	19991215
HU 2001004779	A3	20031229		
EE 2001000328	A	20020815	EE 2001-328	19991215
EE 4917	B1	20071015		
JP 2002533344	T	20021008	JP 2000-589540	19991215
JP 4601175	B2	20101222		
NZ 512870	A	20031128	NZ 1999-512870	19991215
AT 294178	T	20050515	AT 1999-964625	19991215
PT 1144411	E	20050930	PT 1999-964625	19991215
ES 2242443	T3	20051101	ES 1999-964625	19991215
CN 1258533	C	20060607	CN 1999-814705	19991215
PL 196262	B1	20071231	PL 1999-348295	19991215
SK 286158	B6	20080407	SK 2001-814	19991215
IL 143767	A	20100328	IL 1999-143767	19991215
CZ 301953	B6	20100811	CZ 2001-2069	19991215
TW 250981	B	20060311	TW 1999-122194	19991217
EG 24605	A	20100110	EG 1999-1626	19991218
IN 2001MN00441	A	20050304	IN 2001-MN441	20010423
IN 212018	A1	20080125		
BG 105546	A	20011231	BG 2001-105546	20010529
BG 65133	B1	20070330		
NO 2001002710	A	20010601	NO 2001-2710	20010601

NO 318891	B1	20050518		
HR 2001000453	A2	20020630	HR 2001-453	20010615
HR 2001000453	B1	20100731		
MX 2001006244	A	20010910	MX 2001-6244	20010618
ZA 2001004977	A	20020618	ZA 2001-4977	20010618
US 7148214	B1	20061212	US 2001-868535	20010726
HK 1043128	A1	20070119	HK 2002-104999	20020703
US 20050026901	A1	20050203	US 2004-898844	20040726
US 7087595	B2	20060808		

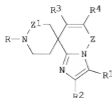
PRIORITY APPLN. INFO.:

EP 1998-204347	A	19981219
WO 1999-EP10176	W	19991215
US 2001-868535	A1	20010726

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 133:74016

GI



I

AB Title compds. [I; R = Z2Z3R5, Z2NHCOR5, Z2R5; R1 = H, halo, alkyl, acyl, etc.; R2 = H, halo, alkyl, aryl, etc.; R3R4 = YCH:CH, CH:CHY, CH:CHCH:CH; R5 = (un)substituted heteroaryl, -tetrahydrofuranyl, etc.; Y = O, S, (alkyl)imino, alkanoylimino; Z = alkylene, CH:CH, CH2CH(OH), CH2O, etc.; Z1 = CH2 or CH2CH2; Z3 = O, S, NH] were prepared. Thus, 1-phenylmethyl-1H-imidazole was condensed with 1-phenylmethyl-4-piperidone and the product cyclized to give, after hydrogenation, I (R1 = R2 = H, R3R4 = CH:CHCH:CH, Z = CH2, Z1 = CH2CH2) (II; R = H) which was N-alkylated by 1-(2-bromoethyl)-4-ethyl-1,4-dihydro-5H-tetrazol-5-one to give II [R = 2-(4-ethyl-5-oxo-1,4-dihydro-1H-tetrazol-1-yl)ethyl]. Data for biol. activity of I were given.

IT 279253-82-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of spirotricyclic compds. as H1 receptor antagonists)

RN 279253-82-6 CAPLUS

CN Spiro[cyclohexane-1,10'-[10H]imidazo[1,2-a]thieno[3,2-d]azepine],
(2E)-2-butenedioate (1:1) (CA INDEX NAME)

CM 1

CRN 279253-81-5

CMF C15 H16 N2 S

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

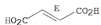
10/565,702

CM 2

CRN 110-17-8

CMF C4 H4 O4

Double bond geometry as shown.



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1998:203750 CAPLUS

DOCUMENT NUMBER: 128:282795

ORIGINAL REFERENCE NO.: 128:55983a,55986a

TITLE: Synthesis of pyrrolidinothieno-(or
[1]benzothieno)[3]azepinones from the corresponding
azepinediones or N-(thienyl or
[1]benzothienyl)acetylprolinal

AUTHOR(S): Othman, Mohamed; Netchitailo, Pierre; Decroix, Bernard
CORPORATE SOURCE: Lab. Chimie, Fac. Scis. Techniques, Univ. Havre, Le
Havre, 76600, Fr.

SOURCE: Heterocycles (1998), 48(2), 335-346

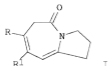
CODEN: HTCYAM; ISSN: 0385-5414

PUBLISHER: Japan Institute of Heterocyclic Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Title compds. I [RR1 = CH:CHS, SCH:CH, o-C6H4S, o-SC6H4] were prepared from
the diones or by direct cyclization of prolinals II.

IT 205761-43-9P 205761-47-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of pyrrolidinothienoazepinones)

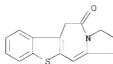
RN 205761-43-9 CAPLUS

CN 5H-Pyrrolo[1,2-a]thieno[2,3-d]azepin-5-one, 4,7,8,9-tetrahydro- (CA INDEX
NAME)



RN 205761-47-3 CAPLUS

CN 5H-[1]Benzothieno[2,3-d]pyrrolo[1,2-a]azepin-5-one, 1,2,3,6-tetrahydro-
(CA INDEX NAME)



OS.CITING REF COUNT:	1	THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT:	10	THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1997:140708 CAPLUS

DOCUMENT NUMBER: 126:131678

ORIGINAL REFERENCE NO.: 126:25437a,25440a

TITLE: Flow Thermolysis Rearrangements in the Indole Alkaloid Series: Strictamine and Akuammicine Derivatives. The Absolute Configurations of Ngouniensine and epi-Ngouniensine

AUTHOR(S): Hugel, Georgette; Royer, Daniel; Le Men-Olivier, Louisette; Richard, Bernard; Jacquier, Marie-Jose; Levy, Jean

CORPORATE SOURCE: Laboratoire de Transformations et Synthese de Substances Naturelles et Laboratoire de Pharmacognosie, Universite de Reims Champagne-Ardenne Faculte de Pharmacie, Reims, F-51096, Fr.

SOURCE: Journal of Organic Chemistry (1997), 62(3), 578-583

CODEN: JOCEAH; ISSN: 0022-3263

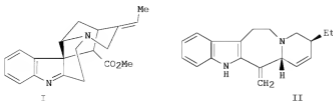
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 126:131678

GI



AB Flow thermolysis of strictamine generated two of the predictable rearrangement products, resulting from [1,5]-sigmatropic shifts: akuammicine and indolenine I. Besides formation of these two compds., a quite different pathway gave rise to a novel rearrangement leading to a indole, with the framework of the natural alkaloid ngouniensine. Rearrangement to the ngouniensine skeleton became the major pathway when the akuammicine derivs. were submitted to thermolysis. These results allowed us to assign the absolute configuration of (-)-ngouniensine (II) (3R,20R) and that of (-)-epingouniensine (3R,20S).

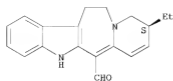
IT 186252-97-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(flow thermolysis rearrangements of indole alkaloids strictamine and akuammicine derivs., absolute configurations of ngouniensine and epi-ngouniensine)

RN 186252-97-1 CAPLUS

CN 5H-Pyrido[1',2':1,2]azepino[4,5-b]indole-6-carboxaldehyde,
9-ethyl-9,10,12,13-tetrahydro-, (9S)- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT:	6	THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
REFERENCE COUNT:	30	THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1995:419668 CAPLUS

DOCUMENT NUMBER: 122:265125

ORIGINAL REFERENCE NO.: 122:48400h,48401a

TITLE: Synthesis of biliverdins with stable extended conformations. Part II

AUTHOR(S): Bari, Sara E.; Iturraspe, Jose; Frydman, Benjamin

CORPORATE SOURCE: Fac. Farm. Bioquim., Univ. Buenos Aires, Buenos Aires, 1113, Argent.

SOURCE: Tetrahedron (1995), 51(8), 2255-66

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 122:265125

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The synthesis of two hexacyclic, I and II, and one heptacyclic biliverdin, III, with extended conformations was achieved using base catalyzed intramol. substitution reactions of 2-chloroethyl biliverdins. The 2-chloroethyl residues were located at selected β -pyrrole positions as to enable them to react with proximal basic nitrogens at the adjacent pyrrole rings. Seven membered rings were thus formed which distorted either two or the three exocyclic double bonds at the biliverdin meso-bridges away from their usual Z-syn configuration. The hexacyclic biliverdin I is isomorphous with the chromophores of C-phycoerythrin, biliverdin II is an isomer of isophorocobalamin, and the heptacyclic biliverdin III has the fullest extended conformation that the biliverdin backbone can achieve.

IT 118631-58-6P 130877-88-2P 162661-71-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

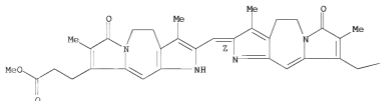
(synthesis of hexacyclic and heptacyclic biliverdins)

RN 118631-58-6 CAPLUS

CN Dipyrrole[1,2-a:2',3'-d]azepine-9-propanoic acid, 2-[[4,5-dihydro-9-(3-methoxy-3-oxopropyl)-3,8-dimethyl-7-oxodipyrrole[1,2-a:2',3'-d]azepin-2(7H)-ylidene]methyl]-1,4,5,7-tetrahydro-3,8-dimethyl-7-oxo-, methyl ester, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



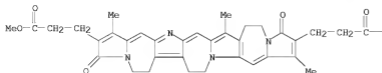
PAGE 1-B



RN 130877-88-2 CAPLUS

CN Pyrrolo[1,2-a]pyrrolo[1''',2''':1'',7'']azepino[4''',5''':4'',5'']pyrrolo[1'',2'':1'',7']azepino[4',5':4,5]pyrrolo[2,3-d]azepine-2,12-dipropanoic acid, 3,5,6,7,8,13,15,16-octahydro-1,11,17-trimethyl-3,13-dioxo-, 2,12-dimethyl ester (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

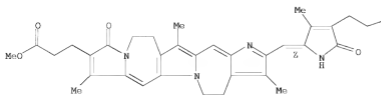
—OMe

RN 162661-71-4 CAPLUS

CN 10H-Dipyrrolo[1',2'-a':2,3-d]pyrrolo[1,5-a:2,3-d']bisazepine-9-propanoic acid, 2-[[1,5-dihydro-4-(3-methoxy-3-oxopropyl)-3-methyl-5-oxo-2H-pyrrol-2-ylidene]methyl]-4,5,12,13-tetrahydro-3,8,14-trimethyl-10-oxo-, methyl ester, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD
(5 CITINGS)

L29 ANSWER 15 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1995:419667 CAPLUS

DOCUMENT NUMBER: 122:290543

ORIGINAL REFERENCE NO.: 122:52971a,52974a

TITLE: Synthesis of biliverdins with stable extended conformations. Part I

AUTHOR(S): Iturraspe, Jose; Bari, Sara E.; Frydman, Benjamin
CORPORATE SOURCE: Fac. Farm. Bioquímica, Univ. Buenos Aires, Buenos Aires, 1113, Argent.

SOURCE: Tetrahedron (1995), 51(8), 2243-54

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 122:290543

AB Biliverdins with extended conformations stabilized by intramol. Et bridges were obtained by base treatment of helical biliverdins with 2-chloroethyl side chains. Thus, neobiliverdin IXb was obtained by reaction of 13,18-di(2-chloroethyl)-biliverdin with DBH. During the reaction, the 2-chloroethyl-C(13) residue underwent an intramol. substitution reaction with N-24 while the 2-chloroethyl-C(18) residue underwent an elimination reaction to form a vinyl residue. This reaction scheme was unambiguously demonstrated by performing the synthesis of [15N-24]-dihydro-neobiliverdin IXb and of [15N-23]-dihydrophorbabilin. The method was then applied to the synthesis of neobiliverdin IXb, a natural product isolated from the ovaries of the sea snake *Turbo cornutus*. It was concluded that when the 2-chloroethyl side chains are at C(3) (or the equivalent C(17)) and C(2) (or the equivalent C(18)) positions of the biliverdin, elimination reactions lead to vinyl residues in basic media; at any other of the β -pyrrole sites, treatment with base leads to the formation of seven-membered rings by intramol. substitution reactions.

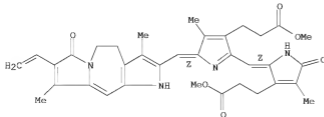
IT 118631-57-5P 163014-57-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of pentacyclic biliverdins)

RN 118631-57-5 CAPLUS

CN 1H-Pyrrole-3-propanoic acid, 2-[[[2-[(8-ethenyl-1,4,5,7-tetrahydro-3,9-dimethyl-7-oxodipyrrolo[1,2-a:2',3'-d]azepin-2-yl)methylene]-4-(3-methoxy-3-oxopropyl)-3-methyl-2H-pyrrol-5-yl)methylene]-2,5-dihydro-4-methyl-5-oxo-, methyl ester, (Z,Z)- (9CI) (CA INDEX NAME)

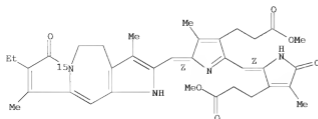
Double bond geometry as shown.



RN 163014-57-1 CAPLUS

CN 1H-Pyrrole-3-propanoic acid, 2-[[[2-[(8-ethyl-1,4,5,7-tetrahydro-3,9-dimethyl-7-oxodipyrrolo[1,2-a:2',3'-d]azepin-2-yl-6-15N)methylene]-4-(3-methoxy-3-oxopropyl)-3-methyl-2H-pyrrol-5-yl)methylene]-2,5-dihydro-4-methyl-5-oxo-, methyl ester, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L29 ANSWER 16 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1994:605360 CAPLUS

DOCUMENT NUMBER: 121:205360

ORIGINAL REFERENCE NO.: 121:37397a,37400a

TITLE: Preparation of antiallergic triazolo(pyrrolo, thieno or furano)azepine derivatives

INVENTOR(S): Janssens, Frans Eduard; Lacrampe, Jean Fernand Armand;

PILATTE, Isabelle Noelle Consta

PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.

SOURCE: PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9413681	A1	19940623	WO 1993-EP3322	19931125
W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KP, KR, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2150804	A1	19940623	CA 1993-2150804	19931125
CA 2150804	C	20061010		
AU 9456280	A	19940704	AU 1994-56280	19931125
AU 676703	B2	19970320		
EP 675889	A1	19951011	EP 1994-901888	19931125
EP 675889	B1	20000705		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
HU 71808	A2	19960228	HU 1995-1619	19931125
HU 223465	B1	20040728		
JP 08503954	T	19960430	JP 1994-513722	19931125
JP 3503065	B2	20040302		
RU 2127737	C1	19990320	RU 1995-115515	19931125
PL 176528	B1	19990630	PL 1993-309255	19931125
AT 194350	T	20000715	AT 1994-901888	19931125
ES 2149861	T3	20001116	ES 1994-901888	19931125
PT 675889	E	20001229	PT 1994-901888	19931125
US 5595988	A	19970121	US 1995-433387	19950508
FI 9502724	A	19950602	FI 1995-2724	19950602
NO 9502200	A	19950803	NO 1995-2200	19950602
NO 311619	B1	20011217		
GR 3034495	T3	20001229	GR 2000-402184	20000928

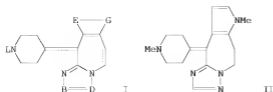
PRIORITY APPLN. INFO.:

EP 1992-203777	A	19921204
EP 1994-901888	A	19931125
WO 1993-EP3322	W	19931125

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 121:205360

GI

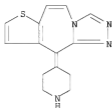


AB Title compds. I (E-G = XCR1CH, CH:CR2X wherein X = O, S or R3N wherein R3 = H, C1-6 alkyl, C1-4 alkylcarbonyl, R1, R2 = H, C1-4 alkyl, halo, (substituted)ethenyl, etc.; BD = CR4:N, N:CR5 wherein R4 H, C1-4 alkyl, (substituted)ethenyl, HO-C1-4 alkyl, HCO, HO2C, R5 = H, Ph, pyridinyl, etc.; L = H, (substituted)C1-6 alkyl, (aryl)C3-6 alkenyl, Alk-Y-Het, Alk-NHCO-Het, Alk-Het wherein Alk = C1-4 alkanediyl,, Y = O, S, NH, Het = (substituted)heterocyclyl) or a salt or stereomer thereof, are prepared (1-Methyl-4-piperidinyl)[1-[2-(1-methyl-1H-pyrrol-2-yl)ethyl]-1H-1,2,4-triazol-5-yl]methanone (preparation given) was added to MeSO3H at 0° followed by NaOH to give after workup II. Pharmaceutical formulations comprising I are given.

IT 1236831-63-2
 RL: PRPH (Prophetic)
 (Preparation of antiallergic triazolo(pyrrolo, thieno or furano)azepine derivatives)

RN 1236831-63-2 CAPLUS

CN INDEX NAME NOT YET ASSIGNED



IT 158144-23-1P 158144-25-3P 158144-26-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reaction of, in preparation of antiallergy agents)

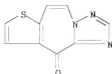
RN 158144-23-1 CAPLUS

CN 10H-Thieno[3,2-d]-1,2,4-triazolo[4,3-a]azepine (CA INDEX NAME)



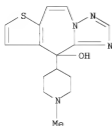
RN 158144-25-3 CAPLUS

CN 10H-Thieno[3,2-d][1,2,4]triazolo[1,5-a]azepin-10-one (CA INDEX NAME)



RN 158144-26-4 CAPLUS

CN 10H-Thieno[3,2-d][1,2,4]triazolo[1,5-a]azepin-10-ol,
10-(1-methyl-4-piperidiny)- (CA INDEX NAME)



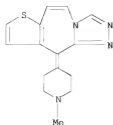
IT 158143-86-3P 158143-89-6P 158144-02-6P

158144-10-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as antiallergy agent)

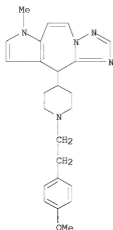
RN 158143-86-3 CAPLUS

CN 10H-Thieno[3,2-d]-1,2,4-triazolo[4,3-a]azepine,
10-(1-methyl-4-piperidinydene)- (CA INDEX NAME)



RN 158143-89-6 CAPLUS

CN Pyrrolo[3,2-d][1,2,4]triazolo[1,5-a]azepine,
7,10-dihydro-10-[1-[2-(4-methoxyphenyl)ethyl]-4-piperidinyl]-7-methyl-
(CA INDEX NAME)



RN 158144-02-6 CAPLUS

CN 10H-Puro[3,2-d][1,2,4]triazolo[1,5-a]azepine,
8-methyl-10-(1-methyl-4-piperidinyl)- (CA INDEX NAME)

L29 ANSWER 17 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1993:213072 CAPLUS
 DOCUMENT NUMBER: 118:213072
 ORIGINAL REFERENCE NO.: 118:36731a,36734a
 TITLE: Preparation of imidazo[1,2-a](pyrrolo, thieno or furano)[3,2-d]azepines as allergy inhibitors
 INVENTOR(S): Janssens, Frans Eduard; Diels, Gaston Stanislas Marcella; Leenaerts, Joseph Elisabeth; Coymans, Ludwig Paul
 PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.
 SOURCE: Eur. Pat. Appl., 60 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 518434	A1	19921216	EP 1992-201665	19920609
R: PT				
IL 101851	A	19960514	IL 1992-101851	19920513
CN 1068116	A	19930120	CN 1992-104830	19920516
CN 1033587	C	19961218		
CA 2102889	A1	19921214	CA 1992-2102889	19920609
CA 2102889	C	20021126		
WO 9222553	A1	19921223	WO 1992-EP1331	19920609
W: AU, BB, BG, BR, CA, CS, FI, HU, JP, KP, KR, LK, MG, MW, NO, PL, RO, RU, SD, US				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, MC, ML, MR, NL, SE, SN, TD, TG				
AU 9219011	A	19930112	AU 1992-19011	19920609
AU 652841	B2	19940908		
EP 588859	A1	19940330	EP 1992-911643	19920609
EP 588859	B1	20030813		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
JP 06507890	T	19940908	JP 1992-510734	19920609
JP 3182421	B2	20010703		
HU 70428	A2	19951030	HU 1993-3554	19920609
HU 221013	B1	20020729		
PL 170376	B1	19961231	PL 1992-301819	19920609
AT 247118	T	20030815	AT 1992-911643	19920609
ES 2204892	T3	20040501	ES 1992-911643	19920609
ZA 9204327	A	19931213	ZA 1992-4327	19920612
US 5461050	A	19951024	US 1993-150121	19931129
NO 9304493	A	19940104	NO 1993-4493	19931209
NO 300689	B1	19970707		
FI 104077	B1	19991115	FI 1993-5557	19931210
PRIORITY APPLN. INFO.:			US 1991-714487	A 19910613
			WO 1992-EP1331	A 19920609

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 118:213072

GI For diagram(s), see printed CA Issue.

AB Title compds. [I; R1 = H, alkyl, halo, ethenyl substituted with CO₂H or alkoxy carbonyl, hydroxyalkyl, CHO, HO₂C, hydroxycarbonylalkyl; R2 = H, alkyl, ethenyl or alkyl substituted with CO₂H or alkoxy carbonyl, hydroxyalkyl, CHO, CO₂H; R3 = H, alkyl, hydroxyalkyl, Ph, halo; L = H,

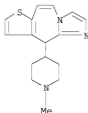
(substituted) alkyl, alkenyl, ZYQ1, ZNHCOQ2, ZQ3; Y = O, S, NH; Z = C1-4 alkylene; Q1, Q2 = (substituted) furyl, thienyl, oxazolyl, thiazolyl, imidazolyl, pyrrolyl, pyrazolyl, thiadiazolyl, oxodiazolyl, pyrimidinyl, pyrazinyl, pyridazinyl, imidazo[4,5-c]pyridin-2-yl; Q3 = Q1, (substituted) 4,5-dihydro-5-oxo-1H-tetrazolyl, 2-oxo-3-oxazolidinyl, 2,3-dihydro-2-oxo-1H-benzimidazol-1-yl, etc.; X = O, S, NR5; R5 = H, alkyl, alkoxy, carbonyl; dotted lines = optional double bonds] were prepared as broad spectrum antiallergics with excellent oral availability, lack of sedating properties, fast onset of action, and favorable duration of action (no data). Thus, [2-(1-methyl-1H-pyrrol-2-yl)ethyl] methanesulfonate was refluxed 3 days with imidazole and K2CO3 in THF to give 61.7% 1-[2-(1-methyl-1H-pyrrol-2-yl)ethyl]-1H-imidazole. The latter and then Et6 1-methyl-4-piperidinecarboxylate were added to a -70° mixture of (MeCH)2NH and BuLi in THF. The mixture was stirred 1 h at -70° and 2 h at room temperature to give 60% (1-methyl-4-piperidinyl)[1-[2-(1-methyl-1H-pyrrol-2-yl)ethyl]-1H-imidazol-2-yl]methanone. This was stirred with MeSO3H at 80° to give 10.8% title compound II. Pharmaceutical I formulations are given.

IT 146800-71-7P 146800-72-8P 147184-18-7P
147184-19-8P 147184-20-1P 147184-22-3P
147184-24-5P 147184-27-8P 147210-29-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as allergy inhibitor)

RN 146800-71-7 CAPLUS

CN 10H-Imidazo[1,2-a]thieno[3,2-d]azepine, 10-(1-methyl-4-piperidinyl)- (CA INDEX NAME)



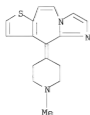
RN 146800-72-8 CAPLUS

CN 10H-Imidazo[1,2-a]thieno[3,2-d]azepine, 10-(4-piperidinylidene)- (CA INDEX NAME)



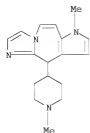
RN 147184-10-7 CAPLUS

CN 10H-imidazo[1,2-a]thieno[3,2-d]azepine, 10-(1-methyl-4-piperidinylidene)-
(CA INDEX NAME)



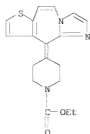
RN 147184-19-8 CAPLUS

CN Imidazo[1,2-a]pyrrolo[3,2-d]azepine,
7,10-dihydro-7-methyl-10-(1-methyl-4-piperidinyl)- (CA INDEX NAME)



RN 147184-20-1 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(10H-imidazo[1,2-a]thieno[3,2-d]azepin-10-
ylidene)-, ethyl ester (CA INDEX NAME)



RN 147184-22-3 CAPLUS
 CN 10H-Imidazo[1,2-a]thieno[3,2-d]azepine, 10-(4-piperidinylidene)-,
 hydrochloride (1:1) (CA INDEX NAME)



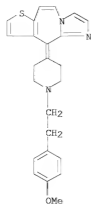
● HCl

RN 147184-24-5 CAPLUS
 CN 10H-Imidazo[1,2-a]thieno[3,2-d]azepine,
 10-[1-[2-(4-methoxyphenyl)ethyl]-4-piperidinylidene]-, ethanedioate (2:5)
 (CA INDEX NAME)

CM 1

CRN 147184-23-4
 CME C24 H25 N3 O S

10/565,702



CM 2

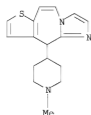
CRN 144-62-7

CME⁺ C2 H2 O4



RN 147184-27-8 CAPLUS

CN 10H-Imidazo[1,2-a]thieno[3,2-d]azepine, 10-(1-methyl-4-piperidinyl)-, hydrochloride (1:2) (CA INDEX NAME)



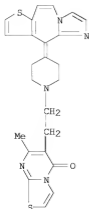
● 2 HCl

10/565,702

RN 147210-29-5 CAPLUS
CN 5H-Thiazolo[3,2-a]pyrimidin-5-one,
6-[2-[4-(10H-imidazo[1,2-a]thieno[3,2-d]azepin-10-ylidene)-1-
piperidinyl]ethyl]-7-methyl-, ethanedioate (1:2) (CA INDEX NAME)

CM 1

CRN 147210-28-4
CMF C24 H23 N5 O S2



CM 2

CRN 144-62-7
CMF C2 H2 O4

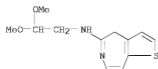


IT 146800-88-6P, 4H-Thieno[2,3-d]azepin-5-amine
146800-89-7P 146800-90-0P,
10H-Imidazo[1,2-a]thieno[3,2-d]azepine 146800-91-1P
146800-92-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediates for imidazolazepine inhibitor)
RN 146800-88-6 CAPLUS
CN 4H-Thieno[2,3-d]azepin-5-amine (CA INDEX NAME)



RN 146800-89-7 CAPLUS

CN 4H-Thieno[2,3-d]azepin-5-amine, N-(2,2-dimethoxyethyl)- (CA INDEX NAME)



RN 146800-90-0 CAPLUS

CN 10H-Imidazo[1,2-a]thieno[3,2-d]azepine (CA INDEX NAME)



RN 146800-91-1 CAPLUS

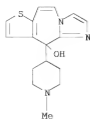
CN 10H-Imidazo[1,2-a]thieno[3,2-d]azepin-10-one (CA INDEX NAME)



RN 146800-92-2 CAPLUS

CN 10H-Imidazo[1,2-a]thieno[3,2-d]azepin-10-ol, 10-(1-methyl-4-piperidinyl)- (CA INDEX NAME)

10/565,702



OS.CITING REF COUNT: 7

THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD
(7 CITINGS)

L29 ANSWER 18 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1993:34948 CAPLUS

DOCUMENT NUMBER: 118:34948

ORIGINAL REFERENCE NO.: 118:6287a,6290a

TITLE: The interplay between basicity, conformation, and enzymic reduction in biliverdins

AUTHOR(S): Bari, Sara; Frydman, Rosalia B.; Grosman, Claudio; Frydman, Benjamin

CORPORATE SOURCE: Fac. Farm. Bioquim., Univ. Buenos Aires, Buenos Aires, Argent.

SOURCE: Biochemical and Biophysical Research Communications (1992), 188(1), 48-56

CODEN: BBRC99; ISSN: 0006-291X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Biliverdins with extended conformations are reduced by biliverdin reductase (BvR) at higher rates than biliverdins with helical conformations. To find out the mol. basis for this important feature of BvR mechanism, helical and extended biliverdins were titrated for their acid-base equilibrium in a protic solvent (methanol). The basicity of biliverdins increased with the stretching of the conformation. Biliverdin IX γ (all-syn) has a $pK_a = 3.6$; 5,10,15-syn,syn,anti-biliverdin has a $pK_a = 3.7$; 5,10,15-syn,anti,syn-biliverdin has a $pK_a = 6.1$; 5,10,15-syn,anti,anti-biliverdin has a $pK_a = 6.4$; and 5,10,15-all-anti-biliverdin has a $pK_a = 7.9$. The increase in basicity with progressive stretching of conformations closely parallels the increase in the reduction rates by BvR. A biliverdin constrained by a 4-carbon chain to a helical conformation and which is a very weak base ($pK_a = 0.4$) is not reduced by BvR. Nucleophilic addns. of 2-mercaptoethanol at the C10 in biliverdins closely parallel their basicities, as can be expected if the formation of a pos. mesomeric species at C10 is linked to the basicity (i.e., the ease of protonation) of the N23 on the pyrrole ring.

IT 130877-88-2 145089-48-1

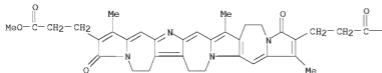
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with biliverdin reductase, substrate conformation and basicity in relation to)

RN 130877-88-2 CAPLUS

CN Pyrrolo[1,2-a]pyrrolo[1''',2''':1''',7''']azepino[4''',5''':4'',5'']pyrrolo[1'',2'':1'',7'']azepino[4'',5'':4,5]pyrrolo[2,3-d]azepine-2,12-dipropionic acid, 3,5,6,7,8,13,15,16-octahydro-1,11,17-trimethyl-3,13-dioxo-, 2,12-dimethyl ester (CA INDEX NAME)

PAGE 1-A



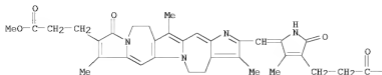
PAGE 1-B

—OMe

RN 145089-48-1 CAPLUS

CN 10H-Dipyrrolo[1',2'-a':2,3-d]pyrrolo[1,5-a:2,3-d']bisazepine-9-propanoic acid, 2-[[1,5-dihydro-4-(3-methoxy-3-oxopropyl)-3-methyl-5-oxo-2H-pyrrol-2-ylidene]methyl]-4,5,12,13-tetrahydro-3,8,14-trimethyl-10-oxo-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

—OMe

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD
(4 CITINGS)

L29 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1992:526659 CAPLUS

DOCUMENT NUMBER: 117:126659

ORIGINAL REFERENCE NO.: 117:21869a,21872a

TITLE: Reconstitution of apomyoglobin with extended biliverdins

AUTHOR(S): Fernandez, Marcelo; Frydman, Rosalia B.; Bari, Sara; Frydman, Benjamin

CORPORATE SOURCE: Fac. Farm. Bioquim., Univ. Buenos Aires, Buenos Aires, Argent.

SOURCE: Biochemical and Biophysical Research Communications (1992), 183(3), 1209-15

CODEN: BBRCAG; ISSN: 0006-291X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An anal. of the reconstitution of biliverdins with extended conformations and horse heart apomyoglobin was carried out. Biliverdins with the 5Z-syn, 10Z-syn, 15Z-anti and 5Z-anti, 10Z-syn, 15Z-anti conformations, as well as biliverdins with the Z,Z,Z all-syn conformation recombined with apomyoglobin. In every case the P enantiomers were bound in excess to the M enantiomers, with the exception of the 5-syn, 10-syn, 15-anti biliverdins where the M enantiomer bound preferentially to the protein. Biliverdins with an anti conformation at the C-10 meso bridge did not recombine with the protein. It was concluded that the presence of a syn conformation at the C-10 methine conferred to the biliverdin the necessary helicity to fit into the apomyoglobin heme pocket. This regioselectivity of the heme pocket is of importance in view of the well-known analogy between the ligand domains of myoglobin and the C-phytylcyanins.

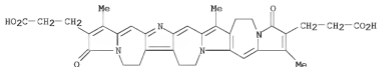
IT 130877-84-8 143222-57-5 143222-59-7

RL: PRP (Properties)

(apomyoglobin reconstitution with, structure in relation to)

RN 130877-84-8 CAPLUS

CN Pyrrolo[1,2-a]pyrrolo[1'',2'':1'',7'']azepino[4''',5''':4'',5'']pyrrolo[1'',2'':1'',7'']azepino[4'',5'':4'',5'']pyrrolo[2,3-d]azepine-2,12-dipropanoic acid, 3,5,6,7,8,13,15,16-octahydro-1,11,17-trimethyl-3,13-dioxo- (CA INDEX NAME)

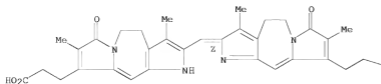


RN 143222-57-5 CAPLUS

CN Dipyrrolo[1,2-a:2',3'-d]azepine-9-propanoic acid, 2-[[9-(2-carboxyethyl)-4,5-dihydro-3,8-dimethyl-7-oxodipyrrolo[1,2-a:2',3'-d]azepin-2(7H)-ylidene]methyl]-1,4,5,7-tetrahydro-3,8-dimethyl-7-oxo-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



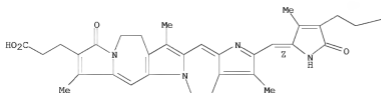
PAGE 1-B

RN 143222-59-7 CAPLUS

CN 5H-Dipyrrolo[1',2'-a':2,3-d]pyrrolo[1,5-a:2,3-d']bisazepine-9-propanoic acid, 2-[[4-(2-carboxyethyl)-1,5-dihydro-3-methyl-5-oxo-2H-pyrrol-2-ylidene]methyl]-4,10,12,13-tetrahydro-3,8,14-trimethyl-10-oxo-, (Z)- (9CI)
(CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L29 ANSWER 20 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1991:2582 CAPLUS

DOCUMENT NUMBER: 114:2582

ORIGINAL REFERENCE NO.: 114:531a,534a

TITLE: The enzymic and chemical reduction of extended biliverdins

AUTHOR(S): Frydman, Rosalia B.; Bari, Sara; Tomaro, Maria L.; Frydman, Benjamin

CORPORATE SOURCE: Fac. Farm. Bioquim., Univ. Buenos Aires, Buenos Aires, Argent.

SOURCE: Biochemical and Biophysical Research Communications (1990), 171(1), 465-73

CODEN: BBRC99; ISSN: 0006-291X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The substrate specificity of rat liver biliverdin reductase was probed using helical and extended biliverdins. The former were the ZZZ-all-syn Biliverdins IX α and IX γ , and the latter were the 5Z-syn, 10Z-syn, 15Z-anti; 5Z-anti, 10Z-syn, 15Z-anti; 5Z-syn, 10E-anti, 15Z-syn; 5Z-syn, 10E-anti, 15Z-anti and 5Z-anti, 10E-anti, 15E-anti biliverdins. Reduction rates of the biliverdins increased with the progressive stretching of their conformations. The most extended biliverdin was reduced at a higher rate than biliverdin IX α . The chemical reduction rates to bilirubins followed a similar pattern. Nucleophilic addition of 2-mercaptoethanol to the C10 methine was also favored in the extended biliverdins.

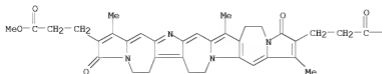
IT 130877-88-2

RL: RCT (Reactant); RACT (Reactant or reagent) (hydrolysis of)

RN 130877-88-2 CAPLUS

CN Pyrrolo[1,2-a]pyrrolo[1''',2''':1''',7''']azepino[4''',5''':4'',5'']pyrrolo[1'',2'':1'',7'']azepino[4',5':4,5]pyrrolo[2,3-d]azepine-2,12-dipropionic acid, 3,5,6,7,8,13,15,16-octahydro-1,11,17-trimethyl-3,13-dioxo-, 2,12-dimethyl ester (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

—OMe

IT 130877-84-8P 130888-62-9P

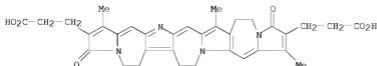
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and reduction by chemical reagent or mammalian biliverdin reductase,

structure relation to)

RN 130877-84-8 CAPLUS

CN Pyrrolo[1,2-a]pyrrolo[1''',2''':1''',7''']azepino[4''',5''':4'',5'']pyrrolo[1'',2'':1'',7'']azepino[4'',5'':4,5]pyrrolo[2,3-d]azepine-2,12-dipropanoic acid, 3,5,6,7,8,13,15,16-octahydro-1,11,17-trimethyl-3,13-dioxo- (CA INDEX NAME)

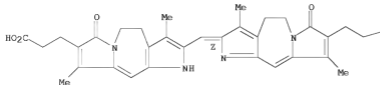


RN 130888-62-9 CAPLUS

CN Dipyrrolo[1,2-a:2',3'-d]azepine-8-propanoic acid, 2-[[8-(2-carboxyethyl)-4,5-dihydro-3,9-dimethyl-7-oxodipyrrolo[1,2-a:2',3'-d]azepin-2(7H)-ylidene]methyl]-1,4,5,7-tetrahydro-3,9-dimethyl-7-oxo-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

—CO₂H

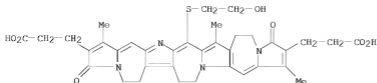
IT 130877-89-3P 130877-90-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, extended or helical conformation effects on mercapto group nucleophilic addition in)

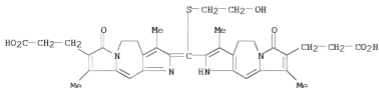
RN 130877-89-3 CAPLUS

CN Pyrrolo[1,2-a]pyrrolo[1''',2''':1''',7''']azepino[4''',5''':4'',5'']pyrrolo[1'',2'':1'',7'']azepino[4'',5'':4,5]pyrrolo[2,3-d]azepine-2,12-dipropanoic acid, 3,5,6,7,8,13,15,16-octahydro-18-[(2-hydroxyethyl)thio]-1,11,17-trimethyl-3,13-dioxo- (CA INDEX NAME)



RN 130877-90-6 CAPLUS

CN Dipyrrolo[1,2-a:2',3'-d]azepine-8-propanoic acid,
2-[[8-(2-carboxyethyl)-1,4,5,7-tetrahydro-3,9-dimethyl-7-oxodipyrrolo[1,2-
a:2',3'-d]azepin-2-yl] [(2-hydroxyethyl)thio]methylene]-2,4,5,7-tetrahydro-
3,9-dimethyl-7-oxo-, (Z)- (9CI) (CA INDEX NAME)



IT 130888-64-1

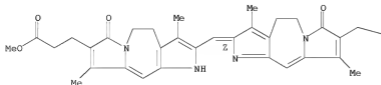
RL: RCT (Reactant); RACT (Reactant or reagent)
(saponification of)

RN 130888-64-1 CAPLUS

CN Dipyrrolo[1,2-a:2',3'-d]azepine-8-propanoic acid,
2-[[4,5-dihydro-8-(3-methoxy-3-oxopropyl)-3,9-dimethyl-7-oxodipyrrolo[1,2-
a:2',3'-d]azepin-2(7H)-ylidene]methyl]-1,4,5,7-tetrahydro-3,9-dimethyl-7-
oxo-, methyl ester, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A





OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD
(5 CITINGS)

L29 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1989:75127 CAPLUS

DOCUMENT NUMBER: 110:75127

ORIGINAL REFERENCE NO.: 110:12401a,12404a

TITLE: Total synthesis of "extended" biliverdins. The relation between their conformation and their spectroscopic properties

AUTHOR(S): Iturraspe, Jose B.; Bari, Sara; Frydman, Benjamin
 CORPORATE SOURCE: Fac. Farm. Bioquim., Univ. Buenos Aires, Buenos Aires, 1113, Argent.

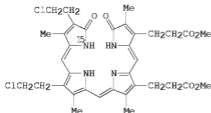
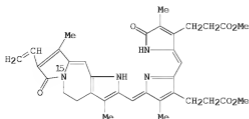
SOURCE: Journal of the American Chemical Society (1989), 111(4), 1525-7

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Extended biliverdins of the neopterobilin type, e.g., I, were obtained by treatment of Z,Z,Z-2-chloroethylbiliverdins, e.g., II, with DBU at 25°. When the 2-chloroethyl residue was at C(7), rotation at the C(5)-C(6) bond allowed a 5Z-syn to 5Z-anti conformational change followed by an intramol. alkylation at N(21). A seven-membered ring was thus formed, which kept the new biliverdin in a 5Z-anti, 10Z-syn 15Z-syn conformation. When two 2-chloroethyl residues at C(7) and C(13) were present in the bilitriene, the DBU treatment afforded a 5Z-anti, 10Z-syn, 15Z-anti biliverdin with two seven-membered rings which resulted from the intramol. alkylation at N(21) and N(24). When the 2-chloroethyl chain was

at C(8), a seven-membered ring was formed by alkylation at N(23) and the resulting biliverdin had a 5Z-syn, 10E-anti, 15Z-syn conformation. The ¹H-NMR spectra of the extended biliverdins are concentration dependent, indicating that these biliverdins (unlike those with a helicoidal conformation) associate in solution. Their spectra were also temperature dependent and

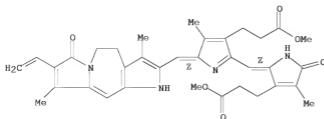
at -80 °C a mixture of conformers could be detected. The ε vis/ε UV ratio of the extended biliverdins increased about a 40-fold over the ratio of the helical-shaped biliverdins, a fact that can be useful for the interpretation of the spectra of biliproteins.

IT 118631-57-5P 118631-58-6P 118631-60-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation, conformation, and spectral characterization of)

RN 118631-57-5 CAPLUS

CN 1H-Pyrrole-3-propanoic acid, 2-[[[2-[(8-ethenyl-1,4,5,7-tetrahydro-3,9-dimethyl-7-oxodipyrrolo[1,2-a:2',3'-d]azepin-2-yl)methylene]-4-(3-methoxy-3-oxopropyl)-3-methyl-2H-pyrrol-5-yl)methylene]-2,5-dihydro-4-methyl-5-oxo-, methyl ester, (Z,Z)- (9CI) (CA INDEX NAME)

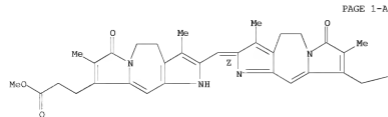
Double bond geometry as shown.



RN 118631-58-6 CAPLUS

CN Dipyrrolo[1,2-a:2',3'-d]azepine-9-propanoic acid, 2-[[[4,5-dihydro-9-(3-methoxy-3-oxopropyl)-3,8-dimethyl-7-oxodipyrrolo[1,2-a:2',3'-d]azepin-2(7H)-ylidene]methyl]-1,4,5,7-tetrahydro-3,8-dimethyl-7-oxo-, methyl ester, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



PAGE 1-A

L29 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1985:578184 CAPLUS

DOCUMENT NUMBER: 103:178184

ORIGINAL REFERENCE NO.: 103:28675a,28678a

TITLE: Firm evidence for cis-aminopalladation in the reaction of 1-aminohexatrienes with palladium dichloride

AUTHOR(S): Isomura, Kazuaki; Okada, Noriyuki; Saruwatari, Masumi; Yamasaki, Hirotaka; Taniguchi, Hiroshi

CORPORATE SOURCE: Fac. Eng., Kyushu Univ., Fukuoka, 812, Japan

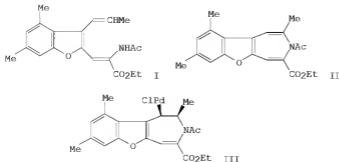
SOURCE: Chemistry Letters (1985), (3), 385-8

DOCUMENT TYPE: CODEN: CMLTAG; ISSN: 0366-7022

LANGUAGE: Journal

OTHER SOURCE(S): English

GI CASREACT 103:178184



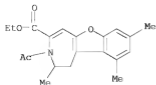
AB The reaction of PdCl₂(PhCN)₂ with Et α-acetamido-β-(4,6-dimethylbenzofuran-2-yl)acrylate I having a Z-propenyl group at 2-position of benzofuran ring, gave an azepine derivative II, whereas its E-isomer afforded a Pd-σ-complex having azepine skeleton III. Configurational assignment of the σ-complex, accomplished by methoxycarbonylation, clearly demonstrates that this intramol. aminopalladation proceeds via cis-aminopalladation.

IT 98796-41-9P 98796-42-0P 98796-43-1P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 98796-41-9 CAPLUS

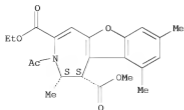
CN 1H-Benzofuro[2,3-d]azepine-4-carboxylic acid, 3-acetyl-2,3-dihydro-2,8,10-trimethyl-, ethyl ester (CA INDEX NAME)



RN 98796-42-0 CAPLUS

CN 1H-Benzofuro[2,3-d]azepine-1,4-dicarboxylic acid,
3-acetyl-2,3-dihydro-2,8,10-trimethyl-, 4-ethyl 1-methyl ester, cis- (9CI)
(CA INDEX NAME)

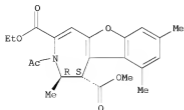
Relative stereochemistry.



RN 98796-43-1 CAPLUS

CN 1H-Benzofuro[2,3-d]azepine-1,4-dicarboxylic acid,
3-acetyl-2,3-dihydro-2,8,10-trimethyl-, 4-ethyl 1-methyl ester, trans-
(9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 98796-40-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation, hydrogenation, and methoxycarbonylation of)

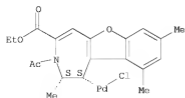
RN 98796-40-8 CAPLUS

CN Palladium, [3-acetyl-4-(ethoxycarbonyl)-2,3-dihydro-2,8,10-trimethyl-1H-

10/565,702

benzofuro[2,3-d]azepin-1-yl]chloro-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 9

THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD
(9 CITINGS)

L29 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1981:460867 CAPLUS

DOCUMENT NUMBER: 95:60867

ORIGINAL REFERENCE NO.: 95:10283a,10286a

TITLE: Palladium-promoted formation of azepines from 1-aminohexatrienyl system

AUTHOR(S): Hatano, Sumiko; Saruwatari, Masumi; Isomura, Kazuaki; Taniguchi, Hiroshi

CORPORATE SOURCE: Fac. Eng., Kyushu Univ., Fukuoka, 812, Japan

SOURCE: Heterocycles (1981), 15(2), 747-52

CODEN: HETCYM; ISSN: 0385-5414

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 95:60867

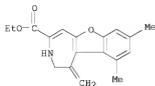
AB Treatment of Et α -amino- β -(3-alkenylbenzofuran-2-yl)acrylate (the 1-aminohexatrienyl system) with PdCl₂(PhCN)₂ in the presence of Na₂CO₃ gave azepines via a selective cyclization of the NH₂ group to the terminal cation of the alkenyl group in an intramol. aminopalladation. The mechanism of this reaction and the acid catalyzed formation of Et dibenzofurancarboxylates was discussed.

IT 78347-79-2P 78347-82-7P 78347-83-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

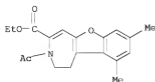
RN 78347-79-2 CAPLUS

CN 1H-Benzofuro[2,3-d]azepine-4-carboxylic acid,
2,3-dihydro-8,10-dimethyl-1-methylene-, ethyl ester (CA INDEX NAME)



RN 78347-82-7 CAPLUS

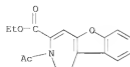
CN 1H-Benzofuro[2,3-d]azepine-4-carboxylic acid,
3-acetyl-2,3-dihydro-8,10-dimethyl-, ethyl ester (CA INDEX NAME)



RN 78347-83-8 CAPLUS

CN 1H-Benzofuro[2,3-d]azepine-4-carboxylic acid, 3-acetyl-2,3-dihydro-, ethyl
ester (CA INDEX NAME)

10/565,702



OS.CITING REF COUNT: 1

THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L29 ANSWER 24 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1980:495115 CAPLUS

DOCUMENT NUMBER: 93:95115

ORIGINAL REFERENCE NO.: 93:15245a,15248a

TITLE: Synthesis of pyrroles, pyridines, and azepines from 2H-azirines

AUTHOR(S): Saruwatari, Masumi; Hatano, Sumiko; Isomura, Kazuaki; Taniguchi, Hiroshi

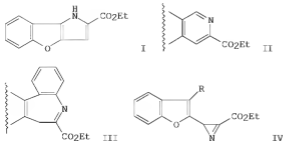
CORPORATE SOURCE: Fac. Eng., Kyushu Univ., Fukuoka, Japan

SOURCE: Fukuoka Kagaku Toronkai Koen Yoshishu, 12th (1979), 211-15. Kitasato Daigaku Yakugakubu: Tokyo, Japan. CODEN: 42VCA9

DOCUMENT TYPE: Conference

LANGUAGE: Japanese

GI



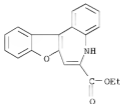
AB The controlling factor for the formation of pyrroles, pyridines, and azepines (e.g. I-III) from 2H-azirines (e.g. IV, R = H, Me, Ph) were discussed with mechanistic detail.

IT 63325-41-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 63325-41-7 CAPLUS

CN 5H-Benzofuro[2,3-d][1]benzazepine-6-carboxylic acid, ethyl ester (CA INDEX NAME)



L29 ANSWER 25 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1978:152465 CAPLUS

DOCUMENT NUMBER: 88:152465

ORIGINAL REFERENCE NO.: 88:24025a,24028a

TITLE: Studies on heterocyclic compounds. XLIII. Reaction of 1-phenyl-4-hydrazino-4,5-dihydro-6H-furo[2,3-d][1]benzazepine-5-carboxylic acid hydrazide with aromatic aldehydes

AUTHOR(S): Ito, Kazuo; Yakushijin, Kenichi; Yoshina, Shigetaka

CORPORATE SOURCE: Fac. Pharm., Meijo Univ., Nagoya, Japan

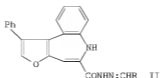
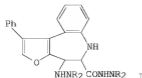
SOURCE: Heterocycles (1978), 9(2), 169-73

CODEN: HTCYAM; ISSN: 0385-5414

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



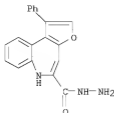
AB The title compound (I; R = H) reacted with R1CHO (R1 = 2-furyl, Ph, p-ClC6H4) in EtOH to give I (R2 = CHR1) and the monoarylidene derivative II.

IT 66206-57-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and condensation with aldehydes)

RN 66206-57-3 CAPLUS

CN 6H-Furo[2,3-d][1]benzazepine-5-carboxylic acid, 1-phenyl-, hydrazide (CA INDEX NAME)



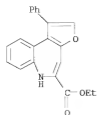
IT 63874-16-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with hydrazine)

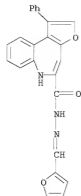
RN 63874-16-8 CAPLUS

CN 6H-Furo[2,3-d][1]benzazepine-5-carboxylic acid, 1-phenyl-, ethyl ester

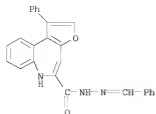
(CA INDEX NAME)



IT 66206-53-9P 66206-54-0P 66206-55-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 66206-53-9 CAPLUS
 CN 6H-Furo[2,3-d][1]benzazepine-5-carboxylic acid, 1-phenyl-,
 2-(2-furanylmethylene)hydrazide (CA INDEX NAME)

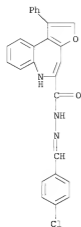


RN 66206-54-0 CAPLUS
 CN 6H-Furo[2,3-d][1]benzazepine-5-carboxylic acid, 1-phenyl-,
 2-(phenylmethylene)hydrazide (CA INDEX NAME)



RN 66206-55-1 CAPLUS

CN 6H-Puro[2,3-d][1]benzazepine-5-carboxylic acid, 1-phenyl-,
2-[(4-chlorophenyl)methylene]hydrazide (CA INDEX NAME)



L29 ANSWER 26 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1977:502204 CAPLUS

DOCUMENT NUMBER: 87:102204

ORIGINAL REFERENCE NO.: 87:16223a,16226a

TITLE: Studies on heterocyclic compounds. Part XXXI.

Synthesis of ethyl 1-phenyl- and

2-methyl-6H-furo[2,3-d][1]benzazepine-5-carboxylates

Yakushijin, Kenichi; Yoshina, Shigetaka; Tanaka, Akira

Fac. Pharm., Meijo Univ., Nagoya, Japan

Heterocycles (1977), 6(6), 721-5

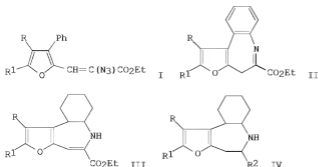
CODEN: HTCYAM; ISSN: 0385-5414

Journal

English

OTHER SOURCE(S): CASREACT 87:102204

GI



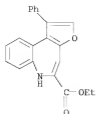
AB Thermolysis of I (R = Ph, R₁ = H; R = H, R₁ = Me) in ligroin gave II, which on thermolysis in boiling xylene gave III. Reduction of III with Zn in AcOH gave IV (R₂ = CO₂Et), which when treated with NaBH₄ in EtOH gave IV (R₂ = CH₂OH), which was also obtained by direct reduction of III with NaBH₄ in EtOH.

IT 63874-16-8P 63874-17-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and reduction of)

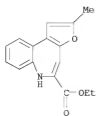
RN 63874-16-8 CAPLUS

CN 6H-Furo[2,3-d][1]benzazepine-5-carboxylic acid, 1-phenyl-, ethyl ester (CA INDEX NAME)



RN 63874-17-9 CAPLUS

CN 6H-Puro[2,3-d][1]benzazepine-5-carboxylic acid, 2-methyl-, ethyl ester
{CA INDEX NAME}



L29 ANSWER 27 OF 27 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 1977:453010 CAPLUS

DOCUMENT NUMBER: 87:53010

ORIGINAL REFERENCE NO.: 87:8395a,8398a

TITLE: Compelled azepine ring formation in thermal ring expansion of 2H-azirine

AUTHOR(S): Isomura, Kazuaki; Taguchi, Hiroshi; Tanaka, Tatsuyoshi; Taniguchi, Hiroshi

CORPORATE SOURCE: Fac. Eng., Kyushu Univ., Fukuoka, Japan

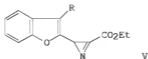
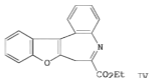
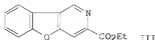
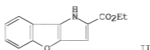
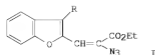
SOURCE: Chemistry Letters (1977), (4), 401-4

CODEN: CMLTAG; ISSN: 0366-7022

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



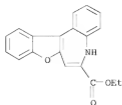
AB Thermolyses of benzofuran-2-ylvinyl azides I (R = H, Me, Ph) gave benzofuopyrrole II, benzofuopyridine III, and benzofurobenzazepine IV, resp. Photolysis of these azides gave the corresponding 2H-azirines V, which on heating gave the same heterocyclic comdps., II-IV, as arose from the thermolysis of I.

IT 63325-41-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 63325-41-7 CAPLUS

CN 5H-Benzofuro[2,3-d][1]benzazepine-6-carboxylic acid, ethyl ester (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD
(3 CITINGS)